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Ill Catalog
1975/77

1975-77

Undergraduate Programs

Undergraduate Programs

University of Illinois at Urbana-Champaign

It is the policy of the University of Illinois to afford equal educational opportunities to qualified persons regardless of race, religion, sex, or ethnic background.

University of Illinois administrative offices at Urbana-Champaign are open daily from 8:00 a.m. to 12:00 noon and 1:00 to 5:00 p.m., Monday through Friday, but not Saturdays, Sundays, or all-campus holidays which are indicated in the University Calendar.

An information and campus tour center, available to visitors to the campus, is located in the north entrance lobby of the Illini Union. The center is open from 8:00 a.m. to 8:00 p.m. daily, including Saturdays and Sundays.

1975-77
Undergraduate Programs

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

(217) 333-1000

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Prospective applicants for admission will find it helpful to first refer to the sections of this catalog regarding the general description of the University, the curricula available to undergraduates, admission, fees and expenses, and financial aid, and then refer to the individual college sections for information concerning college requirements and specific curricula.

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Illustrations

In order to give this *Undergraduate Programs* catalog a more personal touch and to utilize the artistic ability of its students, the University of Illinois at Urbana-Champaign has incorporated into the catalog illustrations provided by students enrolled in the College of Fine and Applied Arts. All were participating in Art 160 — Production, taught by Professor Raymond Perlman of the Department of Art and Design. This year's contributors are: Candy Christman (page 12), Amy Chanzit (page 122), Stuart Naft (page 168), Ann Casady (page 172), Elizabeth Bast (page 184), Rachelle Marcado (page 192), William Bowman (page 208), Peter Crockett (page 244), Jean Franz (page 278), Kevin Hickey (page 360), Patricia Arnold (page 364), Pam Schaefer (page 378), and Mary Roth (page 380).

UNIVERSITY CALENDAR — URBANA-CHAMPAIGN CAMPUS

First Semester, Fall 1975-76

Aug. 17, Sun.-Aug. 23, Sat.	New Student Week
Aug. 21, Thurs.-Aug. 23, Sat. (noon)	Registration
Aug. 25, Mon. (7 a.m.)	Instruction begins
Sept. 1, Mon.	Labor Day all-campus holiday
Nov. 11, Tues.	Veterans Day observance (classes dismissed 10:45 to 11:15 a.m.)
Nov. 26, Wed. (7 a.m.)	Thanksgiving vacation begins
Nov. 27, Thurs.-Nov. 28, Fri.	Thanksgiving all-campus holidays
Nov. 30., Sun.	Thanksgiving vacation ends
Dec. 10, Wed.	Last day of instruction
Dec. 11, Thurs.	Reading day
Dec. 12, Fri.-Dec. 19, Fri.	Semester examinations
Dec. 25, Thurs.	Christmas all-campus holiday
Dec. 31, Wed.-Jan. 1, Thurs.	New Year's all-campus holidays

Second Semester, Spring 1975-76

Jan. 11, Sun.-Jan. 16, Fri.	New Student Week
Jan. 14, Wed.-Jan. 16, Fri. (noon)	Registration
Jan. 19, Mon. (7 a.m.)	Instruction begins
Mar. 13, Sat. (1 p.m.)	Spring vacation begins
Mar. 19, Fri.	Spring recess all-campus holiday
Mar. 21, Sun.	Spring vacation ends
Mar. 22, Mon. (7 a.m.)	Classes resume
May, 6, Thurs.	Last day of instruction
May 7, Fri.	Reading day
May 8, Sat.-May 15, Sat.	Semester examinations
May 16, Sun.	Graduation
May 31, Mon.	Memorial Day all-campus holiday

Eight-Week Summer Session, 1976

June 7, Mon.-June 8, Tues. (noon)	Registration
June 9, Wed. (7 a.m.)	Instruction begins
July 5, Mon.	Independence Day all-campus holiday
July 6, Tues.	Beginning of second four-week courses
July 29, Thurs.	Last day of instruction
July 30, Fri.-July 31, Sat.	Summer session examinations

First Semester, Fall 1976-77

Aug. 22, Sun.-Aug. 27, Fri.	New Student Week
Aug. 25, Wed.-Aug. 27, Fri. (noon)	Registration
Aug. 30, Mon. (7 a.m.)	Instruction begins
Sept. 6, Mon.	Labor Day all-campus holiday
Nov. 11, Thurs.	Veterans Day observance (classes dismissed 10:45 to 11:15 a.m.)
Nov. 24, Wed. (5 p.m.)-Nov. 28, Sun.	Thanksgiving vacation
Nov. 25, Thurs.-Nov. 26, Fri.	Thanksgiving all-campus holidays
Nov. 29, Mon. (7 a.m.)	Instruction resumes
Dec. 14, Tues.	Instruction ends
Dec. 15, Wed.	Reading day
Dec. 16, Thurs.-Dec. 23, Thurs.	Semester examinations
Dec. 24, Fri.-Dec. 25, Sat.	Christmas all-campus holidays
Dec. 30, Thurs.-Jan. 1, Sat.	New Year's all-campus holidays

Second Semester, Spring 1976-77

Jan. 9, Sun.-Jan. 14, Fri.	New Student Week
Jan. 12, Wed.-Jan. 14, Fri. (noon)	Registration
Jan. 17, Mon. (7 a.m.)	Instruction begins
Mar. 12, Sat. (1 p.m.)	Spring vacation begins
Mar. 18, Fri.	Spring recess all-campus holiday
Mar. 20, Sun.	Spring vacation ends
Mar. 21, Mon. (7 a.m.)	Instruction resumes
May 5, Thurs.	Instruction ends
May 6, Fri.	Reading day
May 7, Sat.-May 14, Sat.	Semester examinations
May 15, Sun.	Graduation
May 30, Mon.	Memorial Day all-campus holiday

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Herbert Goldhor, Director, Graduate School of Library Science
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A. Lynn Altenbernd, Acting Director, School of Humanities
210 Lincoln Hall, Urbana 61801

Joseph R. Larsen, Jr., Acting Director, School of Life Sciences
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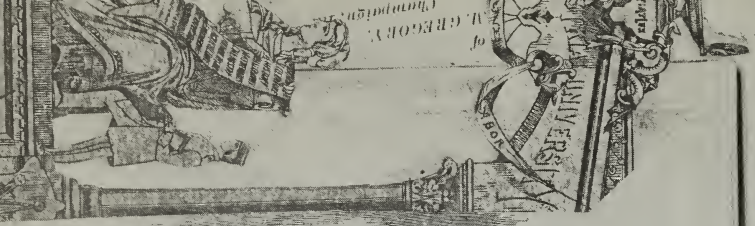
Robert A. Bays, Director, School of Music
3054 Music Building, Urbana 61801

Mark P. Hale, Director, Jane Addams School of Social Work
1207 West Oregon Street, Urbana 61801



1 School of the soldier. Bayonet fencing, a
2 School of Company and Battalion. Bave
3 School of Battalion (completed). Ceremon

SECOND YEA

1 Brigade and Division Evolutions. Sword
2 Guards, outpost and picket duty. Sword f
3 Military Administration. Reports and Ret practice. 2.

THIRD YEAR

1 Organization etc. of armies. Art of war, 1
2 Artillery and Cavalry tactics—theoretical.
3 Engineering, and Field Fortifications. Ta

COURSE 12: SCHOOL OF

1 Bookkeeping by single and double entry. T the several principal and auxiliary books. lations; English or German; Mathematic
2 Partnership Accounts. Commission and S Forms and Papers. Notes, Drafts, E Lading. Accounts Current. Account Sale mercial Correspondence; English or Gerr
3 Banking. Brokerage. Railway Accounts. Law; English, German or Mathematics.

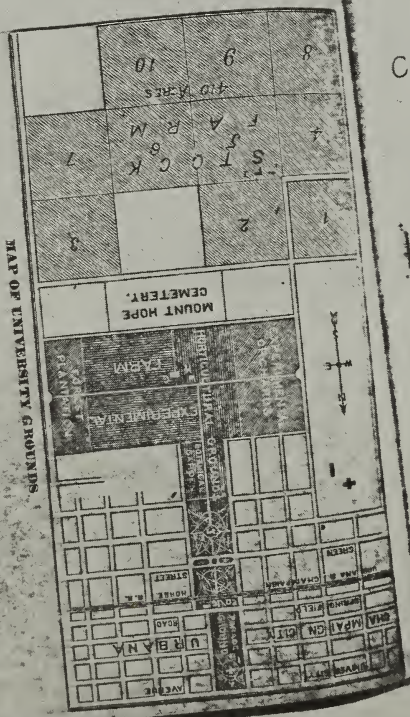
COURSE 13, SCHOOL OF DOMEST

FIRST YEAR

1 Chemistry, Geometry or Projection Drawin
2 Chemistry, Botany or Algebra or Free-hand
3 Botany, Designing and Drawing. English.

SECOND YEAR

1 Chemistry of Foods, Physiology, English,
2 Principles of Cooking, Zoology or Book-kee
3 Domestic Hygiene, Zoology or Mineralogy man or French.



MAP OF UNIVERSITY GROUNDS.

LEARNING AND LABOR.

CATALOGUE AND CIRCULAR

OF THE

ILLINOIS Industrial University

URBANA, CHAMPAIGN COUNTY, ILLINOIS.

1876-7.

CHAMPAIGN:
CHAMPAIGN UNION PRINT.
1877.

MAP OF UNIV

SPRINGFIELD:
BAKER, BAILHACHE & CO., PRINTERS.
1867.

PUBLISHED BY ORDER OF THE BOARD OF TRUSTEES.

NOIS INDUSTRIAL UNIVERSITY.

FOR THE

RSES OF STUDY AND FACULT

The University of Illinois

The University of Illinois has a history of over one hundred years as a state-supported land-grant institution with a threefold mission of teaching. research, and public service.

Chartered by the General Assembly in 1867 under provisions of the Land Grant College Act, the Illinois Industrial College, later renamed the University of Illinois, opened on March 2, 1868, with three faculty members and fifty students in one building near the present community of Urbana-Champaign.

Since then, the University of Illinois has become one of the nation's major universities with three main campuses — the original Urbana-Champaign campus and the Chicago Circle campus, both offering baccalaureate, master's, and doctoral programs, and the Chicago Medical Center campus with teaching, research, and service units in the health sciences. The University of Illinois at the Medical Center also has established several semiautonomous schools of medicine throughout the state, with one, the School of Basic Medical Sciences, located at the Urbana-Champaign campus.

The Urbana-Champaign campus is located approximately 130 miles south of Chicago in the adjoining cities of Urbana and Champaign, a community with a combined population of nearly 95,000. The campus offers undergraduate, graduate, and professional programs of study during an academic year of two semesters and a summer session.

Approximately 25,000 undergraduate, 8,000 graduate, and 1,000 professional students enroll on campus each year. These students come from every state and many foreign countries, but generally about 97 percent of the undergraduate students are Illinois residents.

The information in this catalog primarily applies to the undergraduate colleges, the Institute of Aviation, and the College of Veterinary Medicine at the Urbana-Champaign campus. Separate catalogs are published for the

College of Law and the Graduate College at Urbana-Champaign and for the academic units at the other two campuses of the University.

Eight undergraduate colleges at Urbana-Champaign offer programs of study leading to baccalaureate degrees. They are the College of Agriculture, the College of Commerce and Business Administration, the College of Communications, the College of Education, the College of Engineering, the College of Fine and Applied Arts, the College of Liberal Arts and Sciences, and the College of Physical Education. The Jane Addams School of Social Work has a baccalaureate program in social work. The Institute of Aviation provides two-year terminal curricula open to beginning freshmen and other students.

The Urbana-Champaign campus is an especially attractive environment for undergraduate study. Within each college and the Institute of Aviation, students have the opportunity to develop close relationships with their instructors, advisers, and others of similar academic interests while benefiting from the extensive educational resources and facilities of a large public institution.

Beginning freshmen, as well as advanced students, find that the University offers a wide variety of services to meet their special needs. Academic advising, tutorial assistance, professional counseling, financial assistance, and reading, writing, and study clinics are some of the many services available to students needing assistance.

Many special educational opportunities are also available. The Educational Opportunities Program (EOP) for students who might otherwise be denied a college education, the Advanced Placement Program, proficiency examinations, the College-Level Examination Program (CLEP), an early admission program for high school students, an honors program, services for physically handicapped students, a delayed admission program for beginning freshmen in the College of Liberal Arts and Sciences, special opportunities for the admission of veterans, concurrent enrollment of students at Parkland College and the Urbana-Champaign campus, and independent and overseas study programs are explained in the Special Opportunities section beginning on page 51.

The University Library, with more than 5,000,000 volumes, 540,000 pamphlets, 1,000,000 microtexts, and an extensive collection of periodicals, maps, musical scores, and other materials, offers excellent resources for study and research. The Undergraduate Library in a building adjacent to the general Library provides special study facilities and 125,000 volumes and other materials selected to serve the needs of undergraduate students.

A wide choice of social, cultural, professional, and recreational activities is available to students. Campus events regularly include programs, lectures, forums, theatrical productions, movies, dances, and special scientific and fine arts exhibits. More than 300 professional, social, religious,

service, and scholastic organizations are active on campus. The Krannert Center for the Performing Arts with its four separate and specialized theatres provides excellent facilities for orchestra, opera, choral organizations, theatre, and dance. Opportunity exists for students to participate in many performing musical organizations.

The University of Illinois at Urbana-Champaign actively supports intercollegiate athletics for men and women and is committed to having a quality program for all student athletes. Men's intercollegiate sports include baseball, basketball, cross-country, fencing, football, golf, gymnastics, swimming, tennis, track, and wrestling. The women's program includes seven intercollegiate sports: basketball, golf, gymnastics, swimming/diving, tennis, track, and volleyball.

Many facilities are available for intramural and personal sports and recreation including golf courses; indoor and outdoor swimming pools; gymnasiums; indoor and outdoor tracks; tennis, basketball, and handball courts; ice skating rinks; pistol ranges; and playing fields.

General Information

CURRICULA AVAILABLE TO UNDERGRADUATES

Appearing below are the curricula offered by the undergraduate colleges, the Institute of Aviation, and the Jane Addams School of Social Work. The list of undergraduate degrees and certificates conferred at the Urbana-Champaign campus and the general requirements for graduation begin on page 90.

Most of the curricula are open to qualified students at the beginning of their freshman year. A few curricula, which are identified in the list below, require a year or more of general introductory or preparatory study.

All applicants for admission to the University must apply for admission to a particular college and curriculum. Beginning freshmen are required to remain in the college to which they have been admitted for at least two semesters of full-time study in the prescribed freshman program to which admitted. Students who wish to transfer to another college at the end of one year must meet the accepting college's admission requirements and compete for any available spaces. Because of severe enrollment restrictions it is unlikely that beginning freshmen may later transfer to a number of curricula. Specific, current information is available from the college concerned. For unusual and extenuating circumstances, college offices will consider individual requests to transfer from one college to another after one semester in residence.

College of Agriculture

Agricultural communications (options in advertising, news-editorial, and radio-television)

Agricultural industries (areas of special interest: agricultural commodities, agricultural real estate and finance, farm supplies, and food and food products)

Agricultural science (a four-year program for students desiring preparation for graduate study or professional work in animal, plant, or soil science; agricultural economics; agricultural law; or rural sociology; and a five-year program for students enrolled in the combined agricultural science and agricultural engineering program)

Core curriculum — All students in this curriculum follow a similar program during the first two years leading to specialization during the last two years in one of the following:

Agricultural economics (options in farm management, agricultural marketing, general agricultural economics, and rural sociology)

Agricultural mechanization (industrial option with emphasis on farm structures, conservation, farm power, and farm machinery; and equipment operations option)

Agronomy (options in agronomy, crops, soils, and crop protection)
Animal science (options in general animal science and companion animal biology)
Dairy science
General agriculture (farming and agriculture extension)
Horticulture (fruits, vegetables, or other specialized horticultural crops)

Food industry (options in business, engineering, and production)

Food science

Forest science

Home economics (options in apparel design, the child and the family, foods in business, foods and nutrition, general home economics, hospital dietetics, home management, institution management, retailing of clothing and home furnishings, and textiles and clothing) Students may also combine advertising, journalism, and radio-television with home economics. (See pages 160 to 161.)

Home economics education (for prospective teachers of home economics)

Interior design

Ornamental horticulture (specialization in production, marketing, and use of ornamental crops, and related professional activities)

Restaurant management

Teaching of agricultural occupations, high school level (options in agricultural production, agricultural supply, agricultural mechanization, agricultural products – plants, agricultural products – animals, ornamental horticulture, and agricultural resources and forestry)

Wood science

Institute of Aviation (Two-Year Terminal Curricula)

Flight courses are open to students enrolled in other schools and colleges on a space-available basis.

Aircraft maintenance (including combined flight-maintenance program)

Aviation electronics

Professional pilot

College of Commerce and Business Administration

The first two years of work in all fields in commerce and business administration are almost the same. Students later concentrate in one of the following curricula:

Accountancy

Business administration

Economics (several specialized sequences)

Finance (areas of specialization in finance, investment, and banking; insurance and risk management; and real estate and urban economics)

Curriculum unassigned (Temporary classification for students in the College of Commerce and Business Administration who have not selected a degree program. Selection must be made by the end of the sophomore year.)

College of Communications

This college does not admit beginning freshmen. Applicants for admission to the College of Communications in the following curricula must have completed a minimum of 60 semester hours (90 quarter hours) of undergraduate work by the date of desired admission.

Advertising

News-editorial

Radio-television (to prepare students for work in all except the technical phases of radio and television)

College of Education

CURRICULA OPEN TO FRESHMEN AND OTHER STUDENTS

Business education (areas of specialization in accounting-bookkeeping, data processing, economics, marketing and distributive education, and secretarial-office practice)

Early childhood education (preparation for teaching in the nursery school and kindergarten-primary grades)

Elementary school teaching

Technical education specialties (preparation to teach a specialty at one or more school levels — elementary, secondary, technical institute, junior college, or industrial training program — with such specialties as electronics, health occupations, machine tools, avionics, machine tool drafting, architectural drafting, and construction, as well as industrial arts)

Teaching of deaf and hard-of-hearing children[1]

Teaching of mentally handicapped children

CURRICULUM OPEN TO STUDENTS WITH JUNIOR STANDING

High school teaching (See page 196 for specialties.) Applicants for admission should be aware that five other undergraduate colleges offer teacher education curricula which are open to beginning freshmen and other students. (See page 116.)

College of Engineering

A common program is followed by freshmen in engineering so that a student may change from one of the following curricula to another at the end of the first year without loss of credit.

Aeronautical and astronautical engineering

Agricultural engineering (options in electric power and processing, farm structures, power and machinery, and soil and water)

Ceramic engineering

Civil engineering (areas of specialization: structures and structural materials, soil mechanics and foundation engineering, environmental engineering, construction engineering and management, hydraulic and hydrosystems engineering, photogrammetric and geodetic engineering, transportation systems, and engineering systems)

Combined five-year agricultural engineering–agricultural science program (freshmen enter College of Agriculture)

Combined five-year engineering–liberal arts and sciences program (freshmen enter College of Engineering)

Computer engineering

Computer science

Electrical engineering

Engineering mechanics (for students interested in research and development in engineering)

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[1] Curriculum in the teaching of deaf and hard-of-hearing children may be transferred to the College of Liberal Arts and Sciences. Announcement of that change, if it occurs, will be made in the admissions information which is sent to each prospective applicant.

Engineering physics (including basic preparation for atomic and nuclear engineering)

General engineering (fields of concentration in engineering administration, engineering marketing, environmental quality, computer science, and mining and geological engineering)

Industrial engineering

Mechanical engineering

Metallurgical engineering

Teaching of engineering technology (electronics and mechanical options)

College of Fine and Applied Arts

Architectural studies

Art and design
Art education
General curriculum — All freshmen in art and design curricula except those in art education enter the general curriculum. After completing one year in the general curriculum students must select one of the following degree curricula:
- Crafts (ceramic or metal emphasis)
- Graphic design
- History of art
- Industrial design (art or structural emphasis)
- Medical art (five-year program combined with College of Medicine; the first three years are given at the Urbana-Champaign campus)
- Painting
- Sculpture

Dance (applied program for men and women)

Landscape architecture

Music, with majors in:
History of music
Instrumental music
Music composition
Voice

Music education for prospective teachers (vocal-choral or instrumental emphasis)

Teaching of dance

Theatre
Acting
Directing and playwriting bases
Technology and design (costume and scenery options)

Urban and regional planning

College of Liberal Arts and Sciences

Chemical engineering curriculum

Chemistry curriculum

Combined five-year engineering–liberal arts and sciences program (freshmen enter College of Engineering)

Combined sciences and letters–education program for mathematics teachers

General (two-year curriculum provides advising and counseling for the student who chooses to defer selection of an area of concentration)

Geology curriculum

Home economics curriculum

Physics curriculum

Preprofessional curricula (nondegree programs at the Urbana-Champaign campus)
Medical dietetics
Medical laboratory sciences
Medical record administration
Occupational therapy
Predentistry
Prepharmacy
Prephysical therapy
Preprofessional nursing

Sciences and letters (including preprofessional preparation for the Colleges of Communications, Law, Medicine, and Veterinary Medicine) Also available in this curriculum is the Individual Plans of Study, limited to sophomores and above in good academic standing, which allows students to design a course of study which best fulfills their personal educational interests and abilities.

Students in the sciences and letters curriculum take two years of basic work followed by study in one of the following fields of concentration:

Actuarial science (mathematics)
Anthropology
Asian studies
Astronomy
Biochemistry
Chemistry
Classics (options in classical civilization, Latin, and Greek)
Economics
English
Finance
French (options in language and linguistics, literature, and civilization)
Geography (liberal arts and graduate specialization and professional specialization)
Geology
Germanic languages and literatures (options in language and literature, literature in the European context, language studies, modern German studies, and Scandinavian studies)
History
History of art (comprehensive and specialization options)
Humanities (options in American civilization and medieval civilization)
Italian
Life sciences (options in general biology, honors biology, botany, ecology and ethology, entomology, microbiology, and physiology)
Linguistics
Mathematics (graduate preparatory and liberal arts options)
Mathematics and computer science
Music (options in musicology, ethnomusicology, and music theory and composition)
Philosophy
Physics
Political science
Portuguese
Psychology
Religious studies
Rhetoric
Russian
Russian language and Eastern European studies
Sociology (options in theory and methods, social organization, demography and human ecology, social interaction, and comparative sociology)
Spanish

Speech communication (options in rhetorical and communication theory, and interpretation)

Statistics

Speech and hearing science I (A.B. program)

Speech and hearing science II (B.S. program, for certification)

Teacher education (secondary) in fields of biology, chemistry, earth science, English, geography, mathematics, physics, social studies, and speech

Teacher education (both high school and elementary) **in foreign languages** (French, German, Latin, Russian, Spanish)

College of Physical Education

Health and safety education (with options, selected in the junior and senior years, in school health education and school safety education which are teacher education programs, in community health education, and in public safety education)

Physical education (including areas of concentration in motor development; motor performance and sport; and social science of sport. Each student must declare an area of concentration no later than the first semester of the junior year. Students who desire teacher certification can satisfy the necessary requirements by appropriate selection of courses within correlate areas)

Recreation and park administration (including options in program specialist, recreation and park administration, outdoor recreation, outdoor interpretive education, and therapeutic recreation)

Jane Addams School of Social Work

Students must have junior standing (60 semester hours completed) to be eligible to enter this school, but they may apply for admission whenever they have completed 45 semester hours of college credit. A beginning freshman applicant who is interested in pursuing a program of study in social work is advised to enroll in the general curriculum in the College of Liberal Arts and Sciences. (See Admissions Chart on page 49.)

Social work

PROFESSIONAL COLLEGES

College of Law

The College of Law admits beginning students in August only. Minimum requirements for admission are a bachelor's degree from an accredited four-year college or university, a minimum grade-point average of 3.5 (A = 5.0) in all course work taken, and a satisfactory score on the Law School Admission Test. The fact that an applicant meets the college's minimum requirements does not mean that he or she will be admitted. It means only that the applicant can be considered in competition with all other applicants for that year.

The College of Law has no specific prelegal course requirements for admission, but prospective law students should choose prelegal subjects to achieve a well-rounded general education. A basic course in accounting is strongly recommended. They are advised to consult with the Psychological and Counseling Center at Urbana-Champaign relative to their interests and aptitude for law, and the College of Law in regard to their plans.

Additional information and applications for admission may be obtained by writing to the Dean, College of Law, University of Illinois at Urbana-Champaign, Champaign, Illinois 61820. Applications for taking the Law School Admission Test and a bulletin giving testing dates, locations, and the cost of the test are also avail-

able from the College of Law or from the Educational Testing Service, Box 944, Princeton, New Jersey 08540.

College of Veterinary Medicine

All applicants for admission to the College of Veterinary Medicine must present a minimum of 60 semester hours of preprofessional course work from a fully accredited college or university by the date of desired admission and a 3.5 (A = 5.0) minimum grade-point average. Although a preveterinary medicine curriculum is not offered at the University of Illinois, students interested in completing the preprofessional requirements may do so in a variety of curricula within the College of Agriculture or the College of Liberal Arts and Sciences. Because admission to the College of Veterinary Medicine is very competitive, satisfaction of the preprofessional course work requirement will not guarantee admission. (See College of Veterinary Medicine on page 381.)

POSTBACCALAUREATE PROGRAMS

College of Engineering

A 32 semester hour postbaccalaureate program designed to provide additional training and depth of subject matter is available for persons who are currently teaching in the area of engineering technology. A Certificate in the Teaching of Engineering Technology is awarded upon completion of the program. (See pages 242 to 243.)

Graduate Programs

The Graduate College offers advanced degrees in over one hundred fields of study which are explained in the *Graduate Programs* catalog. This publication is available from the Graduate College, University of Illinois at Urbana-Champaign, 330 Administration Building, Urbana, Illinois 61801.

ADMISSION

Information regarding admission requirements and application procedures may be obtained by contacting the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801, (217) 333-0302. Admission officers are available for consultation from 8:30 a.m. to 12:00 noon and from 1:00 to 4:30 p.m., Monday through Friday (excluding all-campus holidays). Appointments are recommended.

Admission Policy

The fundamental admission policy of the University of Illinois at Urbana-Champaign is to accept for admission the academically best-qualified applicants. The admission requirements described herein are minimum requirements. Since the number of applicants satisfying minimum requirements usually exceeds the limited number of spaces available, the University, in line with its fundamental policy, accepts for admission the best-qualified applicants to the extent of spaces available. Satisfaction of the minimum requirements is not, therefore, a guarantee of admission.

Competitive requirements, those requirements which must be met if an applicant is to compete successfully for admission with other applicants satisfying minimum requirements, vary depending upon the number of spaces available and the number and qualifications of applicants. The Office of Admissions and Records publishes guidelines, based on previous years' admissions experiences, by which

applicants can better determine their chances for admission in competition with other applicants. These guidelines are included in the application packet.

For experimental and special programs, spaces may be reserved for applicants of different qualifications; the number of spaces so reserved may not exceed 10 percent of the previous fall term entering class. A limited number of spaces may also be reserved for applicants entering programs for which admission decisions must be delayed.

General Requirements for Admission

Applications for admission may be submitted by individuals who may not have satisfied the general admission requirements of age, high school graduation, minimum high school credits, and prescribed subjects, on the date of application, but who will have satisfied them by the date of desired enrollment at the Urbana-Champaign campus. (Also, see Other Categories of Admission on page 37.)

AGE

An applicant must be at least sixteen years of age. The dean of the college concerned, however, may admit on petition a student fifteen years of age who meets all other requirements for admission and who is to reside, while attending the University, with his parents or guardian, or with someone selected by them.

HIGH SCHOOL GRADUATION

High school graduation is a requirement for admission except for students eligible for admission under special opportunities. (See pages 58 to 59.) The high school graduation requirement can be met by graduation from:

Accredited Secondary Schools. To be admitted an applicant must be a graduate of an accredited secondary school. If the school is in Illinois, it must be fully recognized by the state superintendent of education; if located elsewhere, its rating must be equivalent to full recognition. (See page 27.)

Unaccredited Secondary Schools. Graduates of unaccredited secondary schools which offer four years of instruction are admitted by examination. The director of admissions and records is authorized to admit a student who is a graduate of such an unaccredited secondary school subject to his satisfactory performance in advance of admission on the General Educational Development Tests. (See page 28.) The provisions for special admissions may apply. (See page 38.)

HIGH SCHOOL CREDITS

Applicants for admission to all curricula must present a total of at least 15[2] units[3] of acceptable secondary school work. The required 15 units must include the following:

1. Three units in English.[4]
2. One unit each in algebra and plane geometry.[5]
3. All subjects prescribed in the admissions pattern specified for the curriculum which the applicant desires to enter. (See Subject Pattern Requirements below.)
4. Elective units. Since the number of prescribed units for all curricula (1, 2, and 3 above) is less than the 15 required, each applicant must present elective units selected from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet the standards for accrediting. Courses in such fields as agriculture, art, commerce, general science, home economics, industrial arts, and music are accepted as elective units for admission.

SUBJECT PATTERN REQUIREMENTS

There are, at the Urbana-Champaign campus, seven colleges and one institute offering programs of undergraduate study which freshmen may enter. Admission to each particular college and curriculum requires that the applicant complete certain high school subjects. The subjects required differ depending upon the college and curriculum selected by the applicant. There are six different patterns or combinations of subjects, designated by roman numerals I, II, III, IV, V, and VI in the Admissions Chart on pages 44 through 49. See table 1 on page 26 for a description of the subjects which constitute each pattern.

Prospective applicants are urged to consult the admissions brochure available from the Office of Admissions and Records for information concerning possible waivers of the subject pattern requirement which may be possible under the provisions of Special Admissions described on page 38. For the transfer applicant who will have completed, by the date of enrollment at the Urbana-Champaign campus, 30 or more semester hours of acceptable college credit, the subject pattern requirements are waived, except for admission to the College of Fine and Applied Arts.

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[2] Graduates of schools organized as three-year senior high schools, including grades ten, eleven, and twelve, must have taken at least 12 units in the senior high school. Credit earned prior to the ninth grade is accepted under the conditions described on page 28. The transcript of credits certified by the senior high school must show any credit accepted from a lower grade.

[3] A *unit* course of study in the secondary school is a course covering an academic year and including not less than the equivalent of 120 sixty-minute hours of classroom work. Two hours of work requiring little or no preparation outside the class are considered as equivalent to 1 hour of prepared classroom work. Fractional units of the value of less than one-half are not accepted. Not less than 1 unit of work is accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

[4] Only courses in history and appreciation of literature, composition (including oral composition when given as a part of a basic English course), and grammar count toward the 3 units required for admission to all curricula.

[5] General mathematics, college preparatory mathematics, or other courses in mathematics may be accepted in lieu of algebra and plane geometry, or more advanced courses, in cases where the content of the course is essentially the same as that ordinarily included in the required course, as determined by the Department of Mathematics at the University of Illinois at Urbana-Champaign. When such courses are not equivalent to the prescribed algebra and plane geometry, or more advanced courses, they will be accepted as elective credit.

Table 1: High School Subject Pattern Requirements

PATTERN I	MINIMUM NUMBER OF UNITS
English	3
Mathematics[1]	
Algebra	1
Plane geometry	1
One or more units in **at least three** of the following:	
One additional unit in English, 2 units in one foreign language,[2] science (not general science),[3] social studies,[4] additional mathematics (beyond algebra and plane geometry)	5
Total	10

PATTERN II	
English	3
Mathematics[1]	
Algebra	1
Plane geometry	1
One or more units in **at least three** of the following:	
Two units in one foreign language,[2] science (not general science),[3] social studies,[4] additional mathematics (beyond algebra and plane geometry)	7
Total	12

PATTERN III	
English	3
Mathematics[1]	
Algebra	1
Plane geometry	1
One foreign language[2,5]	2
One or more units in **at least two** of the following:	
Additional foreign language, science (not general science),[3] social studies,[4] additional mathematics (beyond algebra and plane geometry)	5
Total	12

PATTERN IV	
English	3
Mathematics[1]	
Algebra	2
Plane geometry	1
One foreign language[2]	2
Science (not general science)[3]	2
Social studies[4]	2
Total	12

PATTERN V	
English	3
Mathematics[1]	
Algebra	2
Plane geometry	1
Trigonometry	½
One foreign language[2,5]	2
One or more units in each of the following:	
Science (not general science),[3] social studies[4]	4
Total	12½

Table 1 (cont.)

PATTERN VI

English	3
Mathematics[1]	
Algebra	2
Plane geometry	1
Trigonometry	½
One foreign language[6]	(2)
One or more units in each of the following:	
Science (not general science),[3] social studies[4]	4
Total	12½

[1] See footnote 5 on page 25.

[2] The foreign language requirement for admission to any curriculum specifying this subject is fulfilled by 2 units in any one foreign language taken in an accredited high school.

[3] The subjects included in the science field are astronomy, biology (or botany and zoology), chemistry, geology, and physics. General science will not be used as a unit of required science but will be counted as an elective toward satisfying the required total of 15 units of acceptable credit.

[4] The subjects included in the social studies field are civics, commercial or economic geography, economics, history, psychology, and sociology.

[5] It is strongly recommended that students complete three or, if possible, four years of the same foreign language before entering the College of Liberal Arts and Sciences at Urbana-Champaign. Students who have completed three years of study will have a variety of options for completing the required one semester of study in the same language in the college. (See page 289.) Students who have completed four years of study will have completed the foreign language requirement for a degree from that college and will not have to take additional foreign language courses unless completing a field of concentration in a foreign language.

[6] A foreign language is not required, but it is recommended; if not taken, it should be replaced with additional science, social studies, or humanities courses.

SOURCES OF ACCEPTABLE CREDITS

The high school credits required to qualify for admission to the undergraduate colleges may be obtained by the following two ways.

Certificate from an Accredited High School or Other Secondary School

A student presenting a certificate from any high school or preparatory school in Illinois fully recognized by the Illinois Office of Education is given entrance credit for all subjects named therein for which the school is specifically accredited. Entrance credits are also accepted on certification from the sources listed below.

- Schools accredited by the North Central Association of Colleges and Secondary Schools.
- Schools accredited by the Southern Association of Colleges and Secondary Schools.
- Schools approved by the New England Association of Colleges and Secondary Schools.
- Schools approved by the Middle States Association of Colleges and Secondary Schools.
- Schools approved by the Northwest Association of Secondary and Higher Schools.
- Schools approved by the Western College Association.
- High schools and academies registered by the Regents of the University of the State of New York.
- Schools accredited by state universities provided the certificate shows that the

standard state of Illinois time requirements have been met. (See footnote 3 on page 25 for definition of high school *unit*.)

High School Credit Completed Prior to the Ninth Grade. Credit completed prior to the ninth grade is accepted by the University if it appears on the transcript of a fully recognized high school and is certified by the principal to be a course equivalent in quality and quantity to the course ordinarily offered in the high school.

Supplementary Certificates. Supplementary certificates from high school principals covering work done and examinations taken in addition to work shown on certificates previously submitted may be accepted in all cases where they refer to work done and examinations passed *prior* to the student's registration at the University. Supplementary certificates relating to secondary school work done and examinations passed *after* his or her registration at the University are not acceptable.

General Educational Development Tests

General Educational Development (GED) Tests may be used for several admission purposes: (1) satisfaction of specific high school subject requirements, (2) satisfaction of the high school graduation requirement, (3) establishment of high school rank in class, and (4) validation of high school graduation from and high school credits earned at unaccredited secondary schools.

Veterans, personnel currently serving in the armed forces,[6] and civilians who are nineteen or more years of age[7] are eligible to take the GED tests. A nonveteran, non–high school graduate, regardless of age, is not eligible to take the GED tests until after the graduation of the class with which he or she would normally have graduated.

The high school subject requirements for admission are described in table 1 on page 26. A passing score on the GED tests allows the following credit: English, 5 units; mathematics, 2½ units; social studies, 4 units; natural sciences, 3½ units. *However,* the credit in mathematics does not satisfy the algebra-geometry requirement. An applicant for admission who has never attended a secondary school but who has passed the GED tests would still be deficient in the subjects indicated below.

Pattern I . . . . . deficient in algebra and geometry.
Pattern II . . . . . deficient in algebra, geometry, and an additional unit in mathematics or 2 units in a foreign language.
Pattern III. . . . . deficient in algebra, geometry, and foreign language.
Pattern IV. . . . . deficient in algebra, geometry, and foreign language.
Pattern V. . . . . deficient in algebra, geometry, trigonometry, and foreign language.
Pattern VI . . . . deficient in algebra, geometry, and trigonometry.

The applicant who has attended, but has not graduated from, an accredited secondary school may use the GED tests to satisfy the graduation requirement for admission and to establish a rank in class, and may, by supplementing his secondary school credits, satisfy the high school subject requirements. The graduate of an accredited high school who is deficient in certain high school subjects required for admission may receive authorization to take single-area GED tests. A graduate of an unrecognized secondary school may use the GED tests to establish a rank in class and to validate graduation from and credits earned at the unaccredited secondary school.

STUDENT PHYSICAL EXAMINATION

Each new student may be required to present evidence of satisfactory physical and mental health to the director of the Health Services at Urbana-Champaign. Each

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[6] See also Undergraduate Credit for Service and Education in the Armed Forces on page 100.

[7] In special cases approved by the director of admissions and records these tests may be used for applicants under nineteen years of age.

admitted applicant for admission will receive a Student Health Report form which he or she may use to report pertinent medical data to the director of the campus Health Service. Upon the advice of a Health Service physician, admission, readmission, *or continuing registration* of a student may be denied until the student is cleared by the McKinley Health Center.

Students transferring from the Chicago Circle or the Medical Center campuses should request that their Student Health Report forms be transferred by the health center on their campus to McKinley Health Center.

Military personnel may have their Student Health Report forms completed by a base physician.

Tuberculosis Control

All new freshmen, transfer, and readmitted students are encouraged to present evidence of freedom from tuberculosis at the Tuberculosis Control Center in the registration procedure. Foreign students are required to complete a chest X-ray at the Health Service before completing registration.

Evidence of freedom from tuberculosis is established by: 1) presentation of a University of Illinois or public health agency certificate (skin test or X-ray) dated within the previous twelve months, 2) undergoing the application of a tuberculin skin test at the Tuberculosis Control Center during registration with a negative interpretation by the University of Illinois Health Service forty-eight to seventy-two hours after application. Persons who have a positive reading to this test should have a chest X-ray at the University of Illinois Health Service, and 3) persons with a history of positive reaction to tuberculosis will not be skin-tested, but will be offered a chest X-ray at the Health Service.

Admission of Beginning Freshmen

An applicant is considered a beginning freshman for *admission* purposes if he or she is entering the University directly from high school, even if he or she has earned college credit through the Advanced Placement Program and/or other programs for superior high school students, *or* if he or she has attempted, subsequent to high school graduation, fewer than 12 semester hours of college-parallel classroom course work at one or more accredited collegiate institutions. A high school midyear graduate planning to attend another collegiate institution before fall term admission to the University of Illinois at Urbana-Champaign should apply as a beginning freshman during his last fall term in high school. Such an applicant is admitted on the basis of his or her high school credentials and test results.[8]

ADMISSION REQUIREMENTS

Read the first two paragraphs under Admission Policy on page 23.

Minimum Admission Requirements

Minimum requirements for the admission of beginning freshmen shall be:

- Nonresidents of the state of Illinois must rank in at least the top quarter of their graduating class if space is inadequate to admit all minimally qualified applicants.[9]
- Residents and nonresidents of Illinois must satisfy the University minimum re-

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[8] If space is not available for midyear high school graduates who have applied for and, on the basis of a completed application submitted, have been determined eligible for admission in the spring semester immediately following their graduation, enrollment may be deferred until the following summer or fall term. Should these students enroll at another collegiate institution during the interim period, their admission to the Urbana-Champaign campus will not be jeopardized if they are in good standing *regardless of the number of credit hours they have completed.*

[9] See Residence Classification on page 100.

quirements in terms of age, high school graduation, total number of high school units, high school subjects prescribed for admission to the particular college and curriculum applied for, and health.[10] (See General Requirements for Admission on pages 24 through 29.)

- In addition, an applicant (whether resident or nonresident of Illinois) for admission to any curriculum for which a special requirement is indicated in the Admissions Chart on pages 44 through 49, must satisfy the special requirement.[11]

Competitive Admission Requirements

It is the policy of the University to accept for admission the academically best-qualified applicants to the extent that spaces are available. Each applicant must apply for admission to a particular college and curriculum within which a fixed number of spaces is available.[12] The criterion used to identify the best qualified of domestic beginning freshman applicants[13] is a combination of high school percentile rank and admission test score (ACT or SAT). (See Admission Test Information below.)

Competitive requirements vary from one admission processing period to another depending upon the number of spaces available and the number and qualifications of applicants. The Office of Admissions and Records publishes guidelines, based on previous years' admissions experiences, by which applicants can assess their chances for admission in competition with other applicants on the basis of their combination of high school percentile rank and admission test score. These guidelines are included in each application packet. Prospective applicants who meet the minimum requirements of the University and of their chosen college and curriculum are encouraged to submit an application form to the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801. (See also Application Dates on page 31.)

ADMISSION TEST INFORMATION[14]

Each domestic beginning freshman applicant, regardless of rank in class or length of time out of school, is required to furnish the Office of Admissions and Records with an admission test score. The assessment administered by the American College Testing (ACT) Program is prescribed. However, an applicant may submit the report of scores on the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board.[15] Applications for admission will not be considered until scores on either the ACT or SAT are received by the Office of Admissions and Records

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[10] See Opportunities for the Physically Handicapped on page 57.

[11] Instructions about procedures for completing these special requirements are provided after an application for admission is received by the Office of Admissions and Records.

[12] Applicants should carefully consider their choice of colleges and curricula since beginning freshmen are required to remain in the college to which they have been admitted for at least two semesters of full-time study in the prescribed freshman program. Students who wish to transfer to another college at the end of one year must compete for any available spaces and must meet the applied-for college's requirements for admission.

[13] Admission requirements and procedures for foreign students are explained on page 40.

[14] Complete information concerning the tests, the dates of test administrations, and the locations of testing centers may be obtained from high school counselors and principals, or by writing to the appropriate testing agency: American College Testing Central Office, Box 168, Iowa City, Iowa 52240, for the ACT; or, the College Entrance Examination Board, Box 592, Princeton, New Jersey 08540, *or* Box 1025, Berkeley, California 94701, for the SAT.

[15] The highest score is used if more than one score report is received.

in the form of an official score report sent directly from the testing agency concerned. *Prospective applicants are urged to complete an admission test in the spring of their junior year.*

APPLICATION DATES

The application forms for admission to the spring, summer, or fall term of any given year are available from the Office of Admissions and Records in early September of the preceding year. Admission application forms and supporting credentials (see Application Documents on page 38) *should be submitted* as soon as possible after the following dates to arrive at the Urbana-Champaign campus before the end of the equal consideration period.[16] All complete and correct applications with the required credentials which are received during the equal consideration period will be considered together regardless of their exact date of receipt. Applicants meeting the deadline date for the equal consideration period will have the best opportunity for admission. Applications received or completed after the end of the equal consideration period will have a reduced chance for admission and may be denied for lack of space although the qualifications of the applicant may be excellent.

September 25 ..... For admission of beginning freshmen in the following spring semester, the end of the equal consideration period is November 1.

September 25 ..... For admission of beginning freshmen in the following fall semester, including those students who wish to enter in the summer session and continue in the fall semester, the end of the equal consideration period is November 15.

February 1 ..... For admission of all students in the following summer session who do not intend to continue in the fall semester. Applications should be submitted before April 1 although there is no equal consideration period for the admission of "summer session only" students. (See Summer Session Admission and Readmission on page 42.)

APPLICATION DOCUMENTS

For information regarding application documents see page 38.

SPECIAL OPPORTUNITIES

Under the Special Opportunities section beginning on page 51 there are several programs discussed which are available to selected beginning freshmen: Educational Opportunities Program (EOP), Early Admission Programs, Opportunities for the Physically Handicapped, Admission of Veterans, Delayed Admission for Beginning Freshmen Admitted to the College of Liberal Arts and Sciences, Concurrent Enrollment of Students at Parkland College and the Urbana-Champaign campus, Concurrent Enrollment of Students in High School and the Urbana-Champaign campus, Advanced Placement Program, Proficiency Examinations, College-Level Examination Program (CLEP), and Edmund J. James Scholars.

Admission by Transfer

Any student who has attempted 12 or more semester hours of college-parallel classroom course work at one or more accredited collegiate institutions, even though

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[16] Although applications from domestic students can technically be considered up to two weeks prior to the first day of registration for the fall term, spaces are rarely available at this late date. The director of admissions and records may accept applications after this technical deadline under exceptional circumstances which justify special consideration.

some hours have been failed, is subject to the requirements and quotas governing admission by transfer.[17]

If a transfer applicant has not completed 12 semester hours or more of baccalaureate-oriented college classroom credit *at the time of submission of the admission application,* he or she must submit all admission materials, including rank in high school class and admission test scores, required of the beginning freshman applicant.

The University of Illinois shall give priority to those transfer applicants who are best qualified. Preference will be given to transfer applicants who will have completed, by the date of desired entry, 60 or more semester hours of college-parallel course work attempted at one or more accredited collegiate institutions. Sixty semester hours are equivalent to 90 quarter hours. When spaces are limited and applicants with equal qualifications are being considered, priority will be given to junior college and four-year college transfer applicants whose curriculum choice is not available at the institution from which they apply for transfer.

ADMISSION REQUIREMENTS

Read the first two paragraphs under Admission Policy on page 23.

Minimum Admission Requirements

Minimum requirements for the admission of transfer students shall be:

- Satisfaction of the University minimum requirements in terms of age, high school graduation, total number of high school units, and health.[18] (See pages 24 through 29.)
- Satisfaction of a special requirement as listed in the Admissions Chart on pages 44 through 49 when applying for admission to any curriculum for which a special requirement is indicated.[19]
- A pretransfer grade-point average of 3.25 (A=5.0). Some curricula require a higher minimum grade-point average. (See the Admissions Chart on pages 44 through 49.)

An applicant, otherwise qualified, who is not in good academic standing at the institution he is attending or has last attended, is required to obtain the approval of the dean of the college he wishes to enter. A person on probation or on dropped status at another institution for disciplinary reasons may enter the University of Illinois at Urbana-Champaign only on the approval of the appropriate subcommittee of the Senate Committee on Student Discipline. (See Admission or Readmission Denied Because of Misconduct on page 101.)

College-parallel Work and Grade-point Average Calculation. Admission of transfer students from junior colleges and four-year collegiate institutions is based only on the transfer work which is of such nature as to prepare the students to continue on to baccalaureate degree programs (or equivalent programs). For purposes of transfer to the University, grade-point averages are calculated on the basis of all college-parallel courses attempted for which grades are assigned, and for which grade-point values can be determined. Incomplete grades are accepted as defined by the initiating institution. Grades in other course work completed, such as

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[17] Exceptions: policy in regard to midyear high school graduates, footnote 8 on page 29.

[18] Prospective transfer applicants who, by the date of desired enrollment at the Urbana-Champaign campus, will have completed fewer than 30 semester hours (45 quarter hours) of college-parallel course work at one or more accredited collegiate institutions and all applicants to the College of Fine and Applied Arts, may also have to satisfy the high school subject pattern discussed on page 25.

[19] Instructions about procedures for completing these special requirements are provided after an application for admission is received by the Office of Admissions and Records.

technical courses similar in content and level to courses taught at the University of Illinois at Urbana-Champaign, may be used in evaluation for admission upon request of the college to which the student seeks admission.

Competitive Admission Requirements

It is the policy of the University to accept for admission the academically best-qualified applicants to the extent that spaces are available. The criterion used to identify the best qualified of applicants for admission by transfer is the cumulative grade-point average.

Competitive requirements vary from one admission processing period to another depending upon the number of spaces available and the number and qualifications of applicants. The Office of Admissions and Records publishes guidelines, based on previous years' admissions experiences, by which applicants can assess their competitive chances for admission. These guidelines are included in each application packet. Prospective applicants who meet the minimum requirements of the University and of their chosen college and curriculum are encouraged to submit an admission application to the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801. (See also Application Dates below.)

TRANSFER OF STUDENTS TO AND FROM THE CHICAGO CIRCLE CAMPUS

The current policy will be announced in the admissions information brochure which is furnished to each prospective applicant.

APPLICATION DATES

Admission applications are available from the Office of Admissions and Records in September for the spring semester and in January for the summer session and fall semester. Admission application forms and supporting credentials (see Application Documents on page 38) should be submitted as soon as possible after the following dates, in order to arrive at the Urbana-Champaign campus before the end of the equal consideration period. All complete and correct applications with the required credentials which are received during the equal consideration period will be considered together regardless of their exact date of receipt. Applications meeting the deadline date for the equal consideration period will have the best opportunity for admission. Applications received or completed after the end of the equal consideration period will have a reduced chance for admission and may be denied for lack of space although the qualifications of the applicant may be excellent.

September 25 ..... For admission to the spring semester, the end of the equal consideration period is November 1.

February 1 ..... For admission to the fall semester or for admission to the summer session to continue in the fall semester, the end of the equal consideration period is March 15.

February 1 ..... For admission of all students to the following summer session who do not intend to continue in the fall semester.[20] Applications should be submitted before April 1 although there is no equal consideration period for the admission of "summer session only" students. (See Summer Session Admission and Readmission on page 42.)

APPLICATION DOCUMENTS

For information regarding application documents see page 38.

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[20] The summer session *Timetable,* available in late February, provides general information of interest to "summer session only" students.

ACCEPTANCE OF CREDIT FROM OTHER COLLEGIATE INSTITUTIONS[21]

Any credit accepted by the Office of Admissions and Records for transfer to the University of Illinois at Urbana-Champaign is, in all cases, subject to review by the student's college and major department with reference to its applicability toward a particular degree, and the student is expected to conform to all the requirements of his chosen degree program.

A student who has passed a course at the University of Illinois may not be given credit for the same course taken elsewhere.

Recognizing that most transfer students will enter the University after completion of two or more years at other colleges and universities in Illinois, the University is cooperating with other collegiate institutions in the state to attain a desirable degree of program coordination. Community college students should consult the *Transfer Handbook for Community College Students, Academic Advisors, and Counselors,* available at their counselors' offices, for help in planning transfer course work.

Accredited Four-Year Institutions

Credits may be accepted for advanced standing from another accredited university or college.

In general, the University of Illinois accepts credit on an hour-for-hour basis for course work which is of such a nature as to prepare students to continue on to baccalaureate or equivalent programs and which is shown on official transcripts of record received directly from other fully accredited collegiate institutions which have been approved by one of the regional accrediting associations, including those classified by the regional accrediting association as Candidates for Accreditation. Students from degree-granting institutions not in one of these categories, but which have been accredited or approved by one of the agencies recognized by the National Commission on Accrediting, also may be allowed credit for work transferred to the University in courses which are substantially equivalent to courses offered at the University of Illinois.

A student transferring from a recognized collegiate institution (i.e., one who has attempted at least 12 semester hours of college-parallel classroom course work), who has been allowed credit for the Advanced Placement Program or the College-Level Examination Program by that institution and such credit is so certified on the official transcript of credits, is allowed credit by the University of Illinois at Urbana-Champaign in the same amount as accepted by the previous institution.

Provisionally Accredited Four-Year Institutions

Credits from schools with provisional accreditation are accepted on the basis of validation by satisfactory completion of additional work in residence. Validation through satisfactory work in residence may be accomplished by earning in the University of Illinois or other fully accredited collegiate institution at least a 3.0 (A= 5.0) grade-point average, or higher if prescribed by the curriculum the student wishes to enter, in the first 15 to 30 semester hours completed thereafter.

Any semester in which the student completes his first 15 semester hours, or any number of semester hours between 15 and 30 inclusive, with the required average, is accepted as validating the transferred credit. In all cases, the grades for all work attempted in the validating period are counted in computing the average. Except as provided below, such credits not validated within the first 30 semester hours can then be validated only by proficiency examinations.

For students who have already completed their residence requirement for graduation, validation of subsequent Class C credits may be considered satisfied by the previous work in residence at the University.

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[21] See page 27 for information on acceptable sources of high school credit.

Upon approval of the student's petition by the dean of his college and the director of admissions and records, credits earned in any subject area are accepted after successful completion (with grades of C or better) of 6 semester hours or 9 quarter hours of higher level courses in the same subject matter field at the University, even though a 3.0 or higher grade-point average was not achieved in the first 15 or 30 semester hours, or their equivalent, in residence.

Unaccredited Four-Year Institutions

Credit from unaccredited institutions is accepted only on the basis of validation by proficiency examination at the University of Illinois after enrollment.

Junior Colleges

Conditions governing acceptance of credit from four-year collegiate institutions also apply to junior colleges.

Credit transferred from an accredited junior college is limited only by the provision that the student must earn at least 60 semester hours required for the degree after attaining junior standing at the University of Illinois at Urbana-Champaign or at any other approved four-year institution, except that the student must meet the residence requirements for a degree from the University. Any request for exception to this rule in individual cases must be submitted to the dean of the student's college for decision. When a school or college requires three years of preprofessional college credit for admission, at least the last 30 semester hours of preprofessional credit must be earned in an approved four-year collegiate institution.

Credits earned at a junior college which has not been accredited by the North Central Association of Colleges and Secondary Schools, but which has been given a Class 1 rating and is recognized by the Illinois Junior College Board, will be accepted without validation for a period of time not to exceed five years from the date on which the college registers its first class after achieving Class 1 status.

The scholastic average of a student applying for admission to the University by transfer from a junior college is computed on the same basis as for transfers from a four-year institution. (See College-parallel Work and Grade-point Average Calculation on page 32.) The status of such a student and the specific credits acceptable toward his degree are determined by the dean of the college the student wishes to enter.

Accredited Professional Schools

Credit earned by undergraduate students in accredited professional schools in courses which are academically oriented, rather than technique oriented, will be accepted in the same manner as credit from any other accredited institution. Acceptance of the credit toward a degree will be determined by the dean of the college concerned.

Readmission

A student will be classified as a readmission applicant if he falls into one of the two following categories:

- A student who has registered and has earned credit in a degree-granting program at the Urbana-Champaign campus.[22]
- A student who has registered as a degree candidate at the Urbana-Champaign

[22] If a student earns credits at Urbana-Champaign as a nondegree candidate and then applies for admission as a degree candidate, he will be considered for admission as a beginning freshman if he has attempted less than 12 semester hours and as a transfer student if he has attempted 12 or more semester hours.

campus, has withdrawn prior to earning credit, and has not earned any credit at any other accredited collegiate institution.[23]

READMISSION POLICY

The following three policy statements apply to any category of readmission applicants.

- Applicants who desire readmission to a college other than the college in which they were previously enrolled may be readmitted only with the approval of the colleges concerned.
- Clearance by the McKinley Health Center is prerequisite to the readmission of a former student whose permanent University record shows an encumbrance for medical reasons.
- Clearance by the Bursar's Division is prerequisite to the readmission of a former student whose permanent University record shows an encumbrance for financial reasons.[24]

Students Who Were Not Dropped for Academic Failure

Students who were not placed on academic drop status when they left the Urbana-Champaign campus and who have not acquired a degree will be automatically readmitted to their former program of study[25] on the same campus for the term of their choice, provided they meet the following conditions:

- If they have attended any other institution of higher learning between the time they left the Urbana-Champaign campus and the term they wish to be readmitted, they must be in good academic standing at the institution which they attended during this interim period. Former students who left the University of Illinois at Urbana-Champaign on clear status or on probation,[26] if they have attended another collegiate institution where they have been dropped or have earned a grade-point average below 3.0 (A = 5.0), may be readmitted to the University of Illinois at Urbana-Champaign only upon approval of the college concerned.
- They have submitted a complete application for readmission (see Application Documents on page 38) to the Office of Admissions and Records by November 1 for the spring semester, or by March 15 for the fall semester or for the summer session to continue in the following fall semester.

Students Who Were Dropped for Poor Scholarship or Were Placed on Undetermined Status

Former students who left the University of Illinois at Urbana-Champaign on academic dropped or undetermined status, regardless of whether or not they have attended another collegiate institution since leaving, and those who withdrew during the last three weeks of a semester or the last two weeks in a summer session or in a term, must obtain approval for readmission from the dean of the college concerned.

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[23] A student who has registered at the Urbana-Champaign campus, has withdrawn prior to earning any credit, and has subsequently earned credit at another accredited collegiate institution will be considered for admission as a beginning freshman if he has attempted less than 12 semester hours and as a transfer if he has attempted 12 or more semester hours of college-parallel classroom course work.

[24] A student in debt to the University at the end of any semester, term, or summer session for fees or other charges is not permitted to register at the University again until his indebtedness has been discharged.

[25] See the first policy statement under Readmission Policy above.

[26] Scholastic probationary status at the University of Illinois at Urbana-Champaign may not be cleared by attendance at another institution except by action of the dean of the student's college.

Students Who Were Dropped or Were Placed on Probation for Disciplinary Reasons

Petitions for readmission of former students who have been dropped from the University of Illinois at Urbana-Champaign for disciplinary reasons and those who are on disciplinary probation or who have been dropped from a previous collegiate institution for disciplinary reasons must be approved by the appropriate subcommittee of the Senate Committee on Student Discipline. (See Admission or Readmission Denied Because of Misconduct on page 101.)

APPLICATION DATES

The application forms for readmission to the spring, fall, or summer term of any given year are available from the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801, in September of the preceding year. An application for readmission and supporting credentials (see Application Documents on page 38) *should be submitted* as soon as possible after the following dates,[27] but not before.

September 25 ..... For admission to the spring semester, the end of the guaranteed readmission period is November 1.

February 1 ..... For admission to the fall semester or for admission to the summer session to continue in the fall semester, the end of the guaranteed readmission period is March 15.

APPLICATION DOCUMENTS

For information regarding application documents see page 38.

Other Categories of Admission

ADMISSION OF UNCLASSIFIED STUDENTS

A person twenty-one years of age or over who is unable to meet the requirements for admission as a degree candidate may be admitted to the University as an unclassified student (not a candidate for a degree) in an undergraduate college, provided he or she secures the approval of the dean of the college concerned.[28] He or she may be required to obtain the recommendation of the instructors in whose courses he or she wishes to enroll. He or she must give evidence that he or she possesses the requisite information and ability to pursue profitably, as an unclassified student, his or her chosen subjects, and he or she must meet the special requirements, if any, for the particular college in which he or she wishes to enroll.

An unclassified student in any college of the University may not enroll for more than two years except by special permission; application must be made through the dean of the college.

A person registered as an unclassified student in one college and desiring to take a course in another college of the University must also obtain the approval of the dean of the latter college.

ADMISSION OF IRREGULAR STUDENTS

The irregular category of admission is for a person holding a bachelor's degree who wishes to continue study by registering in an undergraduate college. To be admitted in this classification a student must obtain the approval of the dean of the college he wishes to enter.

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[27] Note the deadline dates for the guaranteed readmission processing period for Students Who Were Not Dropped for Academic Failure on page 36.

[28] Persons under twenty-one years of age may be considered for admission as an unclassified student under the provisions for Special Admissions. (See page 38.)

ADMISSION TO CORRESPONDENCE COURSES

Correspondence courses are open to any applicant who can meet the University entrance requirements and who is in good standing at the last school attended, and also to persons eighteen years of age or over whose applications are approved by the director of correspondence study. An application from a student who has been dropped from one of the campuses of the University of Illinois or any other collegiate institution will be considered only upon the recommendation of the authorities of the other campus or institution from which the student was dropped. For further information, write to the Director, Correspondence Courses, University Continuing Education, 104 Illini Hall, University of Illinois at Urbana-Champaign, Champaign, Illinois 61820.

ADMISSION OF LISTENERS OR VISITORS

Those wishing to attend a class as listeners or visitors must first obtain, on an Official Visitor's Permit, the written permission of the instructor of the class and the approval of the dean of the college concerned. Persons registering in the University for the first time obtain the required approval from the dean of the college in which the course is offered. Former students not currently registered must obtain approval of the dean of the college in which they were last registered. Former students are not permitted to attend classes as visitors while on dropped status.

Visitors are not permitted in laboratory, military, physical education (other than theory), or studio classes. For additional information, contact the Office of Admissions and Records. (See Visitor's Fee on page 78.)

PART-TIME ENROLLMENT

Each student is expected to pursue a full program of studies; the number of credit hours involved in such a program varies with the college and the curriculum. Pursuance of less than a normal program (carrying a reduced load) may be permitted only with approval of the dean of the student's college or his designated representative. Continuation of part-time enrollment is also subject to the approval of the student's college office.

SPECIAL ADMISSIONS

A student not otherwise eligible for admission may be admitted, with the approval of the director of admissions and records and the dean of the college he wishes to enter, providing he submits evidence which clearly establishes his qualifications to do satisfactory work in the curriculum or the course in which he wishes to enroll. Decision for admission is influenced by the number of qualified applicants denied by competitive standards.

Application Documents

All credentials presented for admission or readmission become the permanent property of the University and are not subsequently released to the student or to another individual or institution. Credentials are *not* held for reconsideration of admission to subsequent terms.

No consideration will be given to any application for admission until all required supporting credentials are received by the Office of Admissions and Records.

ALL APPLICANTS

All applicants for admission must submit:

– A completed admission application form.[29] Blank forms are available from the

[29] Social security numbers, which serve as permanent student identification numbers, must be entered on the admission application *and* on the application for the SAT or ACT test. Students who do not have a social security number should obtain one from their local Social Security Office.

Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801, (217) 333-0302.
- A $20 check or money order, payable to the University of Illinois, in payment of the nonrefundable application processing fee.[30] (See page 69.) The University is not responsible for cash sent through the mail.
- A record of separation from the armed forces of the United States, if applicable.

In addition, applicants must submit, or have submitted, all the credentials listed below for their appropriate category of admission.

FRESHMEN

All freshmen (see definition on page 29) must submit:[31]
- An official high school transcript received from the high school showing the following:
  - Course work completed;[32]
  - A description (course title and credit allowance) of courses in which the student is enrolled at the time of application, if applicable;
  - A description (course title and credit allowance) of courses planned for future high school enrollment, if applicable;
  - The applicant's numerical rank in and size of his graduating class;[33] and
  - The date of the applicant's graduation.
- An official report of the admission test score (ACT or SAT) received directly from the testing agency concerned. (See Admission Test Information on page 30.)

TRANSFERS

All transfers (see definition on page 31) must submit:
- An official high school transcript received directly from the high school of graduation;
- Official transcript(s) of all college work attempted received directly from the institution(s) attended;[34]
- A description (course title, department, course number, and credit allowance) of courses in progress at the time of application, if applicable; and
- A description (course title, department, course number, and credit allowance) of courses, other than those in progress, to be completed prior to the desired term of admission, if applicable.

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[30] Direct transfers from the Chicago Circle campus are exempt from payment of this fee.

[31] Freshman applicants who have completed some college-level course work should ask that a transcript of that work be sent directly from the collegiate institution attended.

[32] Students from three-year senior high schools should request that certification of work taken in the ninth grade be included on or with the transcript. (See page 28.) Eighth grade work for high school credit should also be included.

[33] Since it is the policy of the University to accept for admission the academically best qualified of applicants competing for limited spaces, the University needs an objective measure of academic qualification which is comparable to measures used by other high schools. Descriptive statements are generally not comparable from school to school and will probably work to the applicant's disadvantage unless accompanied by a numerical class rank. Therefore, *high school personnel are urged to provide a numerical class rank or substitute ranking.*

[34] And for transfers with less than 12 semester hours of baccalaureate-oriented college classroom credit earned at the time of submission of the application, ACT or SAT test scores received directly from the testing company and rank in high school class directly from the high school.

READMISSION

All readmission students (see definition on page 35) must submit:
- An official transcript received directly from each collegiate institution at which course work was attempted since last attendance at the Urbana-Champaign campus, if applicable;
- A description (course title, department, course number, and credit allowance) of courses in progress at the time of application, if applicable; and
- A description (course title, department, course number, and credit allowance) of courses, other than those in progress at the time of application, to be completed prior to the desired term of readmission, if applicable.

Information accompanying the admission application from the Office of Admissions and Records will outline the timetable for notification of admission decisions. If approved for admission, the applicant will be requested by a specified date to verify his intent to enroll, and approval for admission may be cancelled if the student fails to do so within the specified time limit. Admitted applicants also receive other information and instructions important to their preparation for enrollment at the Urbana-Champaign campus. (See Precollege Programs on page 49.)

Admission of Foreign Students

The Office of Admissions and Records is authorized to decide which students shall be classified as *foreign* according to the following definition: A person who is a citizen or permanent resident alien of a country or political area other than the United States and has a residence outside the United States to which he expects to return and either is, or proposes to be, a temporary alien in the United States for educational purposes is classified as a foreign student.

ADMISSION REQUIREMENTS

Admission is competitive and preference is given to applicants who are best-qualified academically for success at the University of Illinois at Urbana-Champaign. Minimum requirements for the admission of foreign students shall be:
- Satisfaction of the University minimum requirements in terms of age, high school graduation, high school units, health, and the minimum requirements in terms of high school subjects prescribed for admission to the particular college and curriculum applied for. (See General Requirements for Admission on page 24.)
- Satisfaction of a special requirement for admission to any curriculum for which a special requirement is indicated — such as an interview, aptitude test, or audition.
- Satisfaction of the University requirement for English proficiency. (See Testing Requirements below.)
- Adequate financial resources. (See Financial Resources on page 41.)

TESTING REQUIREMENTS

A test of competence in English is required of all foreign students, including transfers, who file applications for admission to the University of Illinois at Urbana-Champaign, except foreign students who are citizens of a country where the native language is English, or who have degrees from colleges or universities in countries where English is the native language and where all instruction was in English. A score on the examination must be received by the University before action is taken on the student's request for admission. All prospective students who receive a score below the minimum score of acceptance on the test will not be admitted to the University. The director of admissions and records may, however, upon agreement with the college concerned, waive the requirement of the test if evidence of competence in English presented by the applicant clearly justifies such action.

The Test of English as a Foreign Language (TOEFL) administered by the Educational Testing Service, Princeton, New Jersey 08540 has been approved

for this purpose. In cases where TOEFL testing dates are not available prior to the desired term of entry, the University will arrange for substitution of the test given by the English Language Institute, Testing and Certification Division, Ann Arbor, Michigan. Complete instructions for arranging the required English test at a convenient location are sent to each applicant for whom it is required. Final admission status for these applicants is determined after the test results have been received.

If the foreign applicant is admissible, his or her performance on the English test will either excuse him or her from further study of English, or indicate the need for additional study of English. If the results indicate that further study of English is necessary, he or she is required to take a placement test administered by the Division of English as a Second Language at the University of Illinois at Urbana-Champaign prior to registration. The results of the placement test determine whether or not the student is required to register for one or more zero-credit courses in English. If this becomes necessary, the student's program of credit courses is reduced accordingly, and a longer time may be necessary for completion of his or her degree requirements. (See page 93 for a statement of the English requirement for undergraduate degrees.)

FINANCIAL RESOURCES

University financial aid funds are extremely limited and are available only to applicants in specific aid programs. Individual requests for financial aid cannot be considered. Therefore, in order to be considered for admission, an applicant must have financial resources of *at least* $4,400 for each nine-month academic year of planned attendance. This amount will cover the present tuition and fees, books, and living expenses from August to June. Travel, summer school attendance, or support of dependents will require additional funds. The applicant should also plan ahead for possible periodic increases in expenses.

APPLICATION DATES

Applications for admission to the spring and fall semesters will be accepted beginning October 1 of the preceding year. Applications and all supporting credentials should be sent as soon as possible after October 1. Complete applications will be considered as they are received until all spaces have been filled. Admission decisions will be announced in writing to each applicant as soon as they are available.

Prospective applicants may obtain additional information and application material from the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801.

APPLICATION DOCUMENTS

All foreign applicants must submit:

- A completed "Application for Undergraduate Admission for Applicants from Other Countries."
- A $20 (U.S.) nonrefundable application fee payment in the form of a check or money order payable to the University of Illinois.
- Official records for at least the last four years of secondary school study and for any postsecondary- or university-level work completed or attempted.[35] When

[35] All records must list subjects taken, grades earned or examination results (including those passed or failed in each subject), and all diplomas and certificates awarded; official translations must be attached to these records if they are in a language other than English. All credentials must be certified by an officer of the educational institution attended or an official of the U.S. government or local government (for Koreans, the American Korean Foundation). Applicants attending U.S. or Canadian schools should have credentials submitted directly by the school.

possible, applicants must have school officials provide a statement of the applicant's rank in class. This statement should indicate the performance of the applicant relative to the performance of other members of his secondary or post-secondary school class. Applicants to some fields may be required to submit additional materials, such as portfolios, aptitude test results, or auditions. These items will be requested by the Office of Admissions and Records when needed and will be required only for applicants satisfying all other admission criteria.

– The results of the Test of English as a Foreign Language (TOEFL), if required, as indicated on page 40.

SUMMER SESSION ADMISSION AND READMISSION

The University of Illinois at Urbana-Champaign conducts an eight-week summer session offering undergraduate courses for both degree and nondegree candidates. Freshman, transfer, and readmission applicants for admission in June, *to continue in the fall,* are degree candidates; undergraduate nondegree status is available only during the summer term to students who are admitted to the summer session *only.*[36] Degree candidates for admission in June, to continue in the fall semester, should refer to preceding sections — Admission of Beginning Freshmen (page 29), Admission by Transfer (page 31), or Readmission (page 35) — for information on admission requirements and application dates. For a description of required application materials degree candidates should refer to Application Documents (page 38).

Undergraduate students enrolled on campus who completed the immediately preceding semester and who are eligible to continue in the same college *need not apply* for admission to the summer session.

An undergraduate student who has been dropped for academic reasons at the end of a spring semester and who desires permission to continue for the following summer session only, *need not apply* for admission to the summer session; he is required to consult with an official of the college from which he was dropped and with an official of the college in which he intends to be readmitted at a future date (the same or another college). A student who is approved for such continuance must petition for readmission at a subsequent term.

Admission of Nondegree Candidates

This section deals only with admission to the eight-week summer term as nondegree candidates.

Approval of admission or readmission as a nondegree candidate in the summer session in no way affects a student's future standing in a college, and satisfactory performance is no assurance of approval for continuation in the fall or at any future time. Students admitted to the summer session as nondegree candidates who later wish to enter one of the colleges of the University[37] as degree candidates must seek admission in the usual manner and must satisfy requirements in effect at the time of application.

All students holding a bachelor's degree must enroll in the Graduate College with the exception of applicants admitted as irregular students (persons holding a bachelor's degree who desire to continue their studies in an undergraduate college). The dean of the college concerned must approve their admission.

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[36] Exceptions: admission as an unclassified student (see page 37) or for some colleges, as an irregular student (see page 37).

[37] Undergraduate applicants for admission or readmission to the University in the summer session, not as candidates for a degree, are not assigned to any college or curriculum.

Admission Requirements

Undergraduate applicants for admission to the summer session only as nondegree candidates may be approved by the director of admissions and records or by the Summer Session Office under one of the following conditions:

- High school graduates who qualify for admission under minimum rank–test score combination requirements,[38] but who have not been admitted under the competitive rank–test score combination requirements in effect for the fall semester, may be admitted to the summer session as nondegree candidates.[39]
- Former University of Illinois at Urbana-Champaign students who have not graduated from the University may be admitted as nondegree candidates if approved by the director of admissions and records through release from their former college.[40]
- Undergraduate students enrolled in other institutions may enroll in the summer session as nondegree candidates if they are eligible to return to the collegiate institution last attended.
- Other persons, eighteen years of age or over, who have never attended a collegiate institution but give evidence that they possess the requisite background and ability to pursue profitably courses for which they are qualified, may enroll in the summer session as nondegree candidates.

Application Date

All applicants for admission to the summer session only as nondegree candidates may submit an application on or after February 1, but not before.

Application Documents

All credentials presented for admission become the permanent property of the University and are not subsequently released to the student or to another individual or institution. All nondegree candidate applicants must submit:

- A completed admission application form. This form is available from and should be returned with the required supporting credentials to the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801.
- A $20 check or money order, payable to the University of Illinois, in payment of the nonrefundable application fee. (See page 69.)

CREDENTIALS REQUIRED OF CERTAIN APPLICANTS

High school graduates (see the first category under Admission Requirements above) may be required to submit an official high school transcript received from the high school showing rank in graduating class, and an official report of the admission test score (ACT or SAT) received from the testing agency concerned.

Teachers may be requested to submit a statement attesting to their employment.

Students enrolled at other collegiate institutions may be requested to submit a statement of eligibility to return to the institution concerned.

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[38] These minimum rank–test score requirements (known as campus minimums) will be available from the Office of Admissions and Records the September preceding the summer term for which admission is sought.

[39] Students who have been approved for admission in the fall semester will be authorized to begin in the immediately preceding summer session if they notify the Office of Admissions and Records of their intent to enroll in the summer session.

[40] Students on drop or probationary status must petition the Summer Session Office for admission as nondegree candidates. If approved, they will be admitted on probation for that one summer session only.

ADMISSIONS CHART

Requirements for Admission to Undergraduate Curricula

In addition to meeting all other admission requirements a nonresident beginning freshman applicant must rank in the top quarter of his graduating high school class if space is inadequate to admit all minimally qualified applicants. Unless a higher average is indicated in the footnotes the required minimum transfer grade-point average is 3.25 (A=5.0) for all curricula.

Colleges and Curricula	Subject Pattern (See page 25.)
COLLEGE OF AGRICULTURE	
Agricultural communications	Pattern I
Agricultural industries	
Agricultural science[1]	
Core curriculum with majors in:[2]	
Agricultural economics (specify option)	
Agricultural mechanization	
Agronomy	
Animal science	
Dairy science	
General agriculture	
Horticulture	
Food industry	
Food science	
Forest science	
Home economics	
Home economics education[3]	
Interior design	
Ornamental horticulture	
Restaurant management	
Teaching of agricultural occupations (high school level)[3]	
Wood science	
Combined agricultural science–agricultural engineering (five-year program)[1,4]	Pattern VI

[1] Minimum transfer grade-point average is 3.5 (A = 5.0).

[2] Transfer applicants with 45 or more semester hours must indicate the desired major.

[3] Special requirements: Students must have a 3.5 (A = 5.0) grade-point average after 60 semester hours. Continuation in this program beyond the sophomore year requires good standing or provisional status in teacher education. (See page 116.)

[4] The first three years are taken in the College of Agriculture. The fourth year is taken in either the College of Agriculture or the College of Engineering. The fifth year is taken in the College of Engineering. (See page 148.)

INSTITUTE OF AVIATION (Two-year terminal curricula)[1]	
Aircraft maintenance	Pattern I
Aviation electronics[2]	
Professional pilot	
Combined flight-maintenance program[3]	

[1] Special requirements: Personal interview and special aptitude test required for all curricula. Special physical examination required for all flight students.

[2] Curriculum in aviation electronics may not be offered in 1975 and thereafter. Announcement of its availability will be made in the literature sent to each prospective applicant.

[3] Students enter aircraft maintenance curriculum.

Colleges and Curricula	Subject Pattern (See page 25.)
COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION	
Accountancy	Pattern IV[1]
Business administration	
Economics	
Finance	
Curriculum unassigned (Temporary classification for students who have not selected a degree program. Selection must be made by the end of the sophomore year.)	

[1] Students admitted with deficiencies under Special Admissions provision must remove the deficiencies within the first year.

COLLEGE OF COMMUNICATIONS[1]	
Advertising[2,3]	See page 185.
News-editorial[2,3]	
Radio-television[2,3]	

[1] Beginning freshmen are not admitted to this college.

[2] Minimum admission grade-point average is 4.0 (A = 5.0), but applicants with a lower average will be considered if they demonstrate strong career motivation and aptitude.

[3] Special requirements: Complete 60 semester hours of undergraduate work. Possess a reasonable degree of typing ability. Applicants are required to submit a letter of career intent, letters of reference, accounts of media experience, and other evidence of interest in communications.

COLLEGE OF EDUCATION	
Business education[1]	Pattern II
Early childhood education[1]	
Elementary school teaching[1,2]	
High school teaching[1,3]	
Teaching of deaf and hard-of-hearing children[1,4,5]	
Teaching of mentally handicapped children[1,4]	
Technical education specialties[1]	

[1] Minimum transfer grade-point average is 3.5 (A = 5.0).

[2] Elementary school teaching (specialty for elementary school librarians), requiring subject pattern III, may be offered. Announcement of its availability will be made in the literature sent to each prospective student.

[3] Special requirement: Enrollment limited to students with junior standing.

[4] Special requirement: Letters of reference and personal history form required.

[5] This curriculum may be transferred to the College of Liberal Arts and Sciences. If that occurs, subject pattern III will be required, and this change will be announced in the admissions information which is sent to each prospective applicant.

Colleges and Curricula	Subject Pattern (See page 25.)
COLLEGE OF ENGINEERING	
Aeronautical and astronautical engineering Agricultural engineering Ceramic engineering Civil engineering Computer engineering Computer science Electrical engineering Engineering mechanics Engineering physics[1] General engineering Industrial engineering Mechanical engineering Metallurgical engineering	Pattern VI
Teaching of engineering technology[2] Electrical technology — electronics Mechanical technology	Pattern II
Combined agricultural science–agricultural engineering (five-year program)	See College of Agriculture on page 44.
Combined engineering–liberal arts and sciences (five-year program)[3,4] (Specify curriculum. See page 212.)	Pattern V
Postbaccalaureate certificate program in the teaching of engineering technology[5] Electrical technology — electronics Mechanical technology (See page 243.)	One year of college physics Completion of integral calculus

[1] A minimum grade-point average of 3.5 (A = 5.0) in all subjects and a combined grade-point average of 3.5 in all courses in mathematics and physics are required for registration in advanced undergraduate physics courses.

[2] Minimum transfer grade-point average is 3.5 (3.3 to 3.5 may submit petition); continuation in this curriculum beyond the sophomore year requires good standing or provisional status in teacher education. (See page 116.)

[3] Minimum transfer grade-point average is 3.5 (A = 5.0). Special requirements: Applicants must satisfy admission requirements of both the College of Engineering and the College of Liberal Arts and Sciences.

[4] The first, fourth, and fifth years are taken in the College of Engineering; the second and third years are taken in the College of Liberal Arts and Sciences. In general, transfer students with more than 75 hours of credit are ineligible for this program.

[5] Special requirements: Baccalaureate degree from an accredited institution, two years of pertinent industrial experience, and two years of experience teaching technical courses in the special field.

Colleges and Curricula	Subject Pattern (See page 25.)
COLLEGE OF FINE AND APPLIED ARTS	
Architectural studies[1]	Pattern V
Art and design curricula[2,6]	Pattern III
Art education[3,5]	
Crafts	
General	
Graphic design	
History of art	
Industrial design	
Medical art (five-year program)[4]	
Painting	
Sculpture	
Dance[7]	Pattern II
Teaching of dance[3,5,7]	
Landscape architecture	
Music, with majors in:[7]	Pattern III
History of music	
Instrumental music	
Music composition	
Voice	
Music education (vocal-choral or instrumental emphasis)[3,5,7]	
Theatre	
Acting[7]	
Directing and playwriting[8]	
Technology and design[8]	
Urban and regional planning	

[1] Transfers from other departments in the University must have a 3.25 (A = 5.0) cumulative grade-point average.

[2] All first-year students in art, except those in art education, enter the general curriculum in art. After completing one year in the general curriculum students must select one of the more specialized art and design curricula.

[3] Continuation in this curriculum beyond the sophomore year requires good standing or provisional status in teacher education. (See page 116.)

[4] The first three years are taken at the Urbana-Champaign campus, and the last two years are taken at the Medical Center, Chicago.

[5] Special requirement: 3.5 (A = 5.0) grade-point average after 60 semester hours.

[6] 3.25 grade-point average required for transfers from other departments in the University and for continuation in art and design courses at the junior level. (See page 255.)

[7] Special requirement: Qualifying audition.

[8] Special requirement: Interview.

Colleges and Curricula	Subject Pattern (See page 25.)
COLLEGE OF LIBERAL ARTS AND SCIENCES	
Combined sciences and letters–education program for mathematics teachers (See page 348.)[1]	Pattern III[10]
General (two-year program for freshmen and sophomores uncommitted to a specified degree program)	
Home economics curriculum	
Medical dietetics[11]	
Medical laboratory sciences[11]	
Medical records administration[11]	
Occupational therapy[2]	
Predentistry[3,11]	
Prepharmacy[11]	
Prephysical therapy	
Preprofessional nursing[11]	
Sciences and letters curriculum, including preprofessional preparation for College of Communications, College of Law, College of Medicine, and College of Veterinary Medicine with fields of concentration in the subjects listed on page 21[4]	
Speech and hearing science I (A.B. program)	
Speech and hearing science II (B.S. program, for certification)[5]	
Teacher education curricula for high school teaching (biology, chemistry, earth science, English, geography, mathematics, physics, social studies, speech)[6,7]	
Teacher education curricula in foreign languages for both high school and elementary school teaching (French, German, Latin, Russian, Spanish)[6,7]	
Chemical engineering	Pattern V[10]
Chemistry	
Geology[8,9]	
Physics[8]	
Combined engineering–liberal arts and sciences (five-year program)[3]	See College of Engineering on page 46.

[1] Minimum transfer grade-point average is 3.75 with 4.0 (A = 5.0) in mathematics courses; same averages required to remain in the program.

[2] An interview with the head of the Department of Occupational Therapy is required. Resident applicants must rank in the upper 50 percent of their high school class. Transfer students, except in exceptional cases, must complete at least two semesters in residence at Urbana-Champaign to be eligible for admission to the professional phase of the curriculum.

[3] Minimum transfer grade-point average is 3.5 (A = 5.0).

[4] See also pages 185, 282, 355, and 381.

[5] To remain in good standing, a student in this program must have achieved a cumulative college grade-point average of at least 3.65 by the completion of his junior year. Students who desire certification for work in the public schools can complete certification requirements by completing a Master of Science degree.

[6] Continuation in these curricula beyond the sophomore year requires good standing or provisional status in teacher education. (See page 116.)

[7] Special requirement: 3.5 (A = 5.0) grade-point average after 60 semester hours.

[8] A minimum grade-point average of 3.5 (A = 5.0) in all subjects and a combined grade-point average of 3.5 in all courses in physics and mathematics are required for registration in advanced undergraduate mathematics and physics courses.

[9] After the second year, students in this curriculum must have and maintain at least a 3.5 general grade-point average. A transfer student must present and maintain a corresponding record.

[10] It is strongly recommended that students complete three or, if possible, four years of the same foreign language before entering the College of Liberal Arts and Sciences.

[11] Admission into this program at the Urbana-Champaign campus does not guarantee admission into the degree program at the University of Illinois at the Medical Center, Chicago. Admission is made on the basis of academic qualifications.

Colleges and Curricula	Subject Pattern (See page 25.)
COLLEGE OF PHYSICAL EDUCATION	
Health and safety education[1,3] (options in school health education, school safety education, community health education, and public safety education)	Pattern II
Physical education[2,3]	
Recreation and park administration (options in program specialist, recreation and park administration, outdoor recreation, outdoor interpretive education, and therapeutic recreation)	

[1] For those who plan to teach (school health education or school safety education option), continuation in this curriculum beyond the sophomore year requires good standing or provisional status in teacher education. (See page 116.)

[2] Continuation in this curriculum beyond the sophomore year requires good standing or provisional status in teacher education. (See page 116.)

[3] Special requirement: 3.5 (A = 5.0) grade-point average after 60 semester hours.

JANE ADDAMS SCHOOL OF SOCIAL WORK[1]	
Social Work[2,3]	See Jane Addams School of Social Work on page 379.

[1] Beginning freshmen are not admitted to this school. Since a student must have junior standing to be eligible to enter the Jane Addams School of Social Work, the beginning freshman applicant is advised to enroll in the general curriculum of the College of Liberal Arts and Sciences.

[2] Students may apply for admission after completion of 45 semester hours of college work, but they must have completed 60 semester hours of undergraduate work at time of entry.

[3] Special requirements: Complete 60 semester hours of undergraduate work. Possess a grade-point average of at least 3.75 (A = 5.0) and present evidence of interest in a professional career in social work; applicants with less than a 3.75 grade-point average will be considered on an individual basis if they demonstrate strong career motivation and aptitude.

PRECOLLEGE PROGRAMS

Freshmen

The University offers to high school seniors who have been approved for admission in the fall semester a series of coordinated precollege programs to assist them in making careful preparation for college. These spring and summer programs include guidance testing, placement and proficiency testing, counseling, academic advising, and advance enrollment. The brochure *Precollege Programs for Beginning Freshmen,* which describes each program and which includes a form for requesting participation, is sent to each beginning freshman with his Permit to Enter the University of Illinois at Urbana-Champaign.[41]

TESTING

Precollege testing is conducted on various Saturdays during the spring at Urbana and Chicago; each student is furnished the test schedule from which he may select a

[41] Freshmen who do not take advantage of the spring and summer programs must complete the required testing, academic advising, and class scheduling during New Student Week, the week immediately preceding fall registration. Information about New Student Week activities is sent to all new students in July. Illinois resident students admitted prior to a certain date may be assessed a late testing fee, however, if they wait to complete the required testing during New Student Week.

test date and location. The tests offered are:[42] School-College Ability Test; placement and proficiency tests in foreign languages (French, German, Latin, Russian, and Spanish); placement tests in chemistry and mathematics;[43] and the College-Level Examination Program (CLEP) general examinations. The testing requirements differ for students depending on their college and curriculum of enrollment. The precollege programs brochure contains a full explanation of required and optional testing. Test scores are not recorded on the student's permanent official academic record.

COUNSELING

The Psychological and Counseling Center offers optional services including the *Self-Counseling Manual* and individual or group counseling interviews to beginning freshmen who have completed the required testing. These services are intended to assist each new student in making the best possible use of the educational opportunities provided by the University and in making wise educational and vocational decisions.

With the aid of the *Self-Counseling Manual* the student and his parents are able to understand the student's test results and to answer for themselves most of the questions freshmen commonly have. Use of the manual may indicate the appropriateness of further counseling; individual or group counseling interviews are available by appointment at the Urbana-Champaign campus from April through July. A request form for such additional counseling is included in the manual. A summary of decisions and recommendations, mutually arrived at in the counseling interview, is given to the student to transmit to the academic adviser.

ACADEMIC ADVISING AND ADVANCE ENROLLMENT

Students who have completed the testing required by their college of enrollment may participate in the academic advising and Advance Enrollment Program conducted at the Urbana-Champaign campus in June and July. During the day that the student is on campus for this program he meets with an academic adviser who assists him in selecting a schedule of courses for the fall semester which satisfies college and curriculum degree requirements.[44] Since beginning freshmen who participate in the summer advance enrollment program have top priority in the scheduling of course requests for the fall semester, the student who has completed the summer program has a definite advantage in completing registration in the fall. Interested students also have the opportunity to audition for band and choral organizations on the day of their advance enrollment.

Transfer and Readmitted Students

New transfer and readmitted students have the opportunity to advance enroll during the summer for the fall semester. These students receive details of the Advance Enrollment Program in a bulletin mailed with their Permit to Enter as well as a form to request participation in the program.

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[42] These tests supplement, but do not replace, the admission test (ACT or SAT) which is used to determine a student's eligibility for admission to the University.

[43] Proficiency tests in chemistry and mathematics are offered during New Student Week.

[44] Since the results on the placement and/or proficiency tests are used by the colleges and academic departments concerned to evaluate each student's achievement level and to assist him in arranging his class schedule, freshmen must complete any testing required by their colleges before they can participate in the summer program. Students whose colleges have no required testing may participate in the summer program without having completed the spring testing program.

Parents Program

Parents are cordially invited to accompany their son or daughter on the day of advance enrollment. The University and the University's Dads and Mothers Associations conduct an orientation for parents to supplement their knowledge about the University and the Urbana-Champaign community.

SPECIAL OPPORTUNITIES

Opportunities for Applicants with Superior Scholastic Records

Because of the comprehensive nature of the University of Illinois at Urbana-Champaign, arrangements for superior students differ among the various colleges and departments. Generally speaking, superior students are able to enter special courses or special sections of courses as freshmen and sophomores, and are encouraged as juniors and seniors to participate in special programs for majors in the different departments. For details of these various arrangements, see the descriptions given in the college sections of this catalog.

ADVANCED PLACEMENT PROGRAM

The Advanced Placement Program, administered by the College Entrance Examination Board, is designed for able high school students who are about to enter college and who wish to demonstrate their readiness for courses more advanced than those most frequently studied in the freshman year. Advanced classes are offered in many high schools in one or more of the following subjects: French, Latin, German, Spanish, English literature, English composition, American history, European history, biology, chemistry, mathematics, and physics. There is a national examination in each subject, administered in May by the Educational Testing Service, which is designed to measure the competence of the student in terms of the point at which he should begin his college study in that subject.

The examinations are prepared by joint national committees of high school and college teachers. They are graded by other national committees on the following basis: 5, high honors; 4, honors; 3, creditable; 2, pass; and 1, fail. The marked papers are sent to the university which the student specifies he will attend. Each department within the University has the option of granting or not granting college credit and advanced placement on the basis of the board's grade or on the basis of the student's paper. The University encourages high schools and their outstanding students to participate in the program.

A student transferring from an accredited collegiate institution (i.e., one who has attempted 12 or more semester hours of college-parallel classroom course work), who has been allowed credit for the Advanced Placement Program by that institution and such credit is so indicated on the official transcript of credits, is also allowed such credit by the University of Illinois at Urbana-Champaign in the same amount as accepted by the previous institution. Application of transferred advanced placement credit toward graduation, however, is subject to approval by the dean of the student's college.

The specific credit recommendations at the Urbana-Champaign campus for beginning freshmen, including students with less than 12 semester hours of college-parallel classroom credit attempted at other collegiate institutions, are listed below.

ART

Art history

Scores of 5 and 4 receive automatic credit for Art 111 and 112 (8 semester hours) except in the College of Fine and Applied Arts. Scores of 3 or below will not be accepted.

Art studio

Scores of 5 and 4 receive automatic credit for Art 117 and 119 (6 semester hours) except in the College of Fine and Applied Arts. Scores of 3 or below will not be accepted.

FOREIGN LANGUAGES

French language

Scores of 5 and 4 receive automatic credit for Fr. 211 and Fr. 215.
Scores of 3 receive credit for Fr. 215 only.
Scores of 2 will not be accepted.

French literature

Scores of 5, 4, and 3 receive automatic credit for Fr. 201 and Fr. 202 (6 semester hours).
Scores of 2 will not be accepted.

German

Scores of 5 and 4 receive automatic credit for Ger. 210 and 211 (6 semester hours).
Scores of 3 receive automatic credit for Ger. 210 (3 semester hours).
Scores of 2 are not considered for advanced placement.

Latin

Scores of 5, 4, and 3 receive automatic credit and appropriate placement as shown below.

Virgil examination: 3 semester hours credit and placement in Lat. 201.
Lyric examination: 3 semester hours credit for Lat. 201 and placement in Lat. 202.

Scores of 2 are not considered for advanced placement or credit.

Spanish

Scores of 5, 4, and 3 receive automatic credit for Span. 241 and 242 (6 semester hours).
Scores of 2 will not be considered for advanced placement or credit.

HUMANITIES

English literature

Papers with scores of 5 and 4 receive automatic credit of 3 semester hours for Engl. 103.
Papers with scores of 3 will be reviewed by the department.
Papers with scores of 2 will not be accepted.

Rhetoric

Papers with scores of 5 and 4 will receive automatic credit of 4 semester hours for Rhet. 105 and exemption from the rhetoric requirement.
Papers with scores of 3 will be reviewed by the department.
Papers with scores of 2 will not be accepted.

MATHEMATICS AND NATURAL SCIENCES

Biology

Biological science majors

Scores of 5 and 4 receive automatic credit for Biol. 110 (5 semester hours), and placement in Biol. 111.
Scores of 3 and 2 are not considered for advanced placement credit.

Nonscience majors

Scores of 5 and 4 receive automatic credit for Biol. 100 and 101 (8 semester hours).
Scores of 3 receive automatic credit for Biol. 100 (4 semester hours) and placement in Biol. 101.
Scores of 2 are not considered for advanced placement credit.

Chemistry

Scores of 5 and 4 receive automatic credit for 6 semester hours of general chemistry lecture work and constitute prerequisite for admission to Chem. 122, 131, and 134.

Scores of 3 receive automatic credit for 3 semester hours of general chemistry lecture work and constitute prerequisite for Chem. 102 or 109. Each student is encouraged to take a proficiency examination in either course immediately after enrolling. A student who passes the Chem. 109 proficiency examination receives another 2 hours credit and may enroll in 108 and 110. A student who passes Chem. 102 either by taking the course or by proficiency examination will be given 4 hours credit each in 101 and 102, making the advanced placement score of 3 worth 4 semester hours, in effect.

Scores of 2 receive no credit.

Mathematics

Calculus AB

Scores of 5, 4, and 3 receive automatic credit for Math. 120 (5 semester hours) and Math. 131 (3 semester hours) and advanced placement in Math. 141.

Scores of 2 receive automatic credit in Math. 120 (5 semester hours) and advanced placement in Math. 130 or 131.

Calculus BC

Scores of 5, 4, and 3 receive automatic credit for Math. 120 (5 semester hours) and Math. 130 (5 semester hours) and advanced placement in Math. 140.

Scores of 2 receive automatic credit in Math. 120 (5 semester hours) and Math. 131 (3 semester hours) and advanced placement in Math. 141.

Physics

Physics B

Scores of 5 and 4: Credit will be given in Phycs. 101 (5 semester hours) and Phycs. 102 (5 semester hours).

Scores of 3: Students may take a proficiency examination or enroll in Phycs. 101. If passed with grade of A or B, credit is granted for Phycs. 101 (5 semester hours) and Phycs. 102 (5 semester hours).

Scores of 2: With approval of the department, students may take proficiency examinations in any of Phycs. 101, 102, 106, or 108 courses and receive credit if the examination is passed.

Scores of 1: Students will not on this basis alone be admitted to proficiency examinations.

Physics C

Scores of 5 and 4: Credit will be given as follows.

Part I — Mechanics: Credit in Phycs. 106 (4 semester hours).

Part II — Electricity and Magnetism: Credit in Phycs. 107 (4 semester hours).

Scores of 3: Credit will be given as follows.

Part I — Students may take a proficiency examination or enroll in Phycs. 106. If passed, credit is granted for Phycs. 106 (4 semester hours).

Part II — Students may take a proficiency examination or enroll in Phycs. 107. If passed, credit is granted for Phycs. 107 (4 semester hours).

Scores of 2 in Part I or Part II: With approval of the department, students may take proficiency examinations in any of Phycs. 101, 102, 106, 107, or 108 courses and receive credit if the examination is passed.

Scores of 1 in Part I or Part II: Students will not on this basis alone be admitted to proficiency examinations.

Whatever his score, a student may of course enroll for credit in any of the introductory courses if he prefers taking the courses to receiving automatic credit or taking proficiency examinations. For additional information or to arrange to take proficiency examinations students should go to 233 Physics Building.

MUSIC

Scores of 5 and 4 receive credit for Music 110 — Basic Music Literature (2 semester hours).

Papers with scores of 3 or below will not be accepted.

SOCIAL STUDIES

American history

Scores of 5 and 4 receive automatic credit for Hist. 151 and 152 (8 semester hours).
Papers with scores of 3 will be reviewed by the department.
Scores of 2 will not be accepted.

European history

Scores of 5 and 4 receive automatic credit for Hist. 111 and 112 (8 semester hours).
Papers with scores of 3 will be reviewed by the department.
Scores of 2 will not be accepted.

DEPARTMENTAL PROFICIENCY EXAMINATIONS

Departmental proficiency examinations are offered in most University courses normally open to freshmen and sophomores. A student may take proficiency examinations in more advanced undergraduate courses on recommendation of the head or chairman of the department and approval of the dean of the student's college. They are available to students participating in the Precollege Programs (see page 49) and during the semester at times announced by the departments.

An undergraduate student who passes a proficiency examination is given credit toward graduation for the amount regularly allowed in the course, if it does not duplicate credit counted for admission to the University, and if it is acceptable in his curriculum. No official record is made of failures in these examinations, but some departments may keep records to prohibit the student from retaking the examinations. Complete information regarding proficiency examinations can be found in the *Code on Campus Affairs and Regulations Applying to All Students,* which is available to each student at registration. Descriptions for all placement and proficiency examinations, including Precollege Testing, CLEP examinations, APP examinations, and departmental proficiency examinations are provided in the brochure entitled *Placement and Proficiency Examinations* available at all college offices.

GENERAL EXAMINATIONS OF THE COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)

The Urbana-Champaign campus administers the General Examinations of the College-Level Examination Program (CLEP) to offer students the opportunity to satisfy one or more of the general education requirements for graduation and to obtain 3 to 6 hours credit for each test successfully completed.

Examinations in the humanities, the social sciences and history, and the natural sciences (which yields two subscores, one in biological science and the other in physical science), are administered for entering students during Precollege Testing. In the College of Liberal Arts and Sciences after December 22, 1975, the natural sciences examination may be used for waiver of general education requirements, but it may not be used to earn credit toward the degree. The Psychological and Counseling Center, 206 Student Services, (217) 333-3706, administers CLEP examinations on an individual basis. Continuing students must receive permission from their college office before taking a CLEP examination. A student who has completed regular college-level course work in any of these four areas may not take the CLEP examination in the same area. Any of these examinations may be taken only once during a given year; the charge for each examination is $7.

CLEP test scores earned by Urbana-Champaign beginning freshmen, including students with less than 12 semester hours of college-parallel classroom credit attempted at other collegiate institutions, are evaluated for credit according to norms established for the campus.

Additional information about CLEP examinations may be obtained from the college offices or from the Measurement and Research Division, University of Illi-

nois at Urbana-Champaign, 307 Engineering Hall, Champaign, Illinois 61820, (217) 333-3490.

EDMUND J. JAMES SCHOLARS HONORS PROGRAM FOR UNDERGRADUATE STUDENTS

The James Scholar Program, named for one of the University's distinguished presidents, provides a number of special curricular opportunities to academically talented undergraduate students. Designation as a James Scholar is recognition by the University of extraordinary ability and achievement. It entitles the student to certain academic privileges, including extended use of library facilities, and charges him with the responsibility of seeking sustained intellectual achievement throughout his undergraduate career. There is no monetary award associated with the designation, and students who need financial assistance should apply to the Office of Student Financial Aids.

James Scholars are characterized by outstanding academic records, high general aptitudes for college work, and reputations for seriousness of purpose, persistence, and self-discipline in educational endeavors.

Students electing to participate in the program may enroll in any undergraduate curriculum; unusual academic arrangements are open to James Scholars in every course of study. These arrangements include the provision of honors courses and sections, special seminars, and interdisciplinary colloquia. In addition, James Scholars are encouraged to pursue individual scholarly interests by means of independent study and research projects.

It is not expected that a James Scholar will take a full schedule of special courses. However, an average of at least one honors activity each semester is expected of each James Scholar, and to encourage such sustained intellectual activity a campuswide program has been implemented in which the student may earn officially recognized honors credit in a regular undergraduate course. This is accomplished by means of a learning agreement between the student and the instructor in which the student agrees to undertake a special course-related project; successful completion of the project then earns the student transcript-designated honors credit for the course.

James Scholars Participation Procedures

Academic requirements for participation in the program are determined by the respective colleges. In general, undergraduates in most colleges may "self-select" into the program provided the decision is based on prior achievement and faculty or administrative advice, and is accomplished prior to the terminal dates set for entry into academic programs leading to an honors degree. Students above a predetermined college selection index are automatically admitted as James Scholar Designates in the College of Liberal Arts and Sciences. (See page 286 for further information regarding James Scholars in Liberal Arts and Sciences.) Students may elect to leave the program or may be removed for failure to meet standards of academic performance in the various colleges.

During summer advance enrollment, freshmen in most colleges will receive additional information regarding specific college programs leading to an honors degree, and at that time, in consultation with their advisers, may self-select into the program and select an honors course or plan other honors activities.

Although the honors program in each college will vary in detail, generally, incoming freshmen electing to undertake an honors program will enter the University as James Scholar Designates. After completion of a period on campus, each designate's record will be reviewed by his college, and he will be either invited to continue as a full James Scholar or advised to drop from the program on the basis of criteria developed by each college. Resident and transfer students wishing to self-select into the program should inquire at their college offices.

Specific inquiries regarding the honors program of a college should be addressed to the college office in care of the honors dean. General information about

campuswide honors activities is available from the Director, University Honors Programs, University of Illinois at Urbana-Champaign, 1205 West Oregon Street, Urbana, Illinois 61801.

Educational Opportunities Program

GENERAL NATURE AND PURPOSES

The Educational Opportunities Program (EOP) at the University of Illinois at Urbana-Champaign is one of several such programs at colleges and universities across the country. This program is designed to provide opportunities for a college experience to students who have historically been excluded from postsecondary education for a variety of reasons. A similar program exists at the Chicago Circle campus.

Participants in the program, like many other students, receive financial support from federal loans and grants, Illinois State Scholarship Commission grants, and tuition waivers authorized by the University. Like other students, participants in the EOP also contribute toward their expenses through family contributions, summer and part-time employment, and loans. Financial aid also comes from private funds available to the University for this purpose. Supporting services for the program are provided by federal grants and by University contributions in the form of staff time and use of facilities.

Through the EOP, the University is attempting to do several important things:

- Provide educational opportunities to students who otherwise might not even be able to consider undertaking a college-level program.
- Increase the representation of underrepresented ethnic groups at the Urbana-Champaign campus.
- Develop educational practices and policies, both academic and administrative, which will assist and support such students and which may well benefit students generally.
- Provide for those students not in the EOP the vital cultural and social experience of meeting, living, and learning with and from students from a different culture.
- Provide and disseminate to other educational institutions and agencies information which will increase their ability to deal with educational and sociological problems which affect students from disadvantaged backgrounds.

ADMISSION REQUIREMENTS

Admission to the program is limited to applicants from Illinois who fall into one of the following categories:

- Beginning freshmen who meet the high school subject-pattern requirements for the college and curriculum of their choice and who meet the high school rank–test score combination for this program. (This information may be obtained from the high school counselor.)
- Students not meeting the above stated academic requirements may be considered for special admission even though they do not meet the high school subject-pattern requirements. For a student to be admitted on this basis, both the dean of the college involved and the director of admissions and records (or their designated representatives) must concur.

Equivalent SAT verbal and mathematics scores are acceptable in lieu of the composite ACT score. It should be noted that in some curricula such as education, professional pilot, music, occupational therapy, etc., additional requirements must be met. (See Admissions Chart on pages 44 through 49.)

SUPPORTIVE SERVICES

The program of supportive services will endeavor to meet the wide range of needs of students in the EOP. Supportive services are designed to provide academic and

nonacademic assistance as needed. The basic elements of the supportive services program are as follows:

- Individual academic advising based upon information derived from the student's past records, test results, ability, and interests. The optimum class schedule and course selections will be determined by each student in consultation with special advisers in the various colleges.
- Development of specially designed course offerings by various departments of the University, including basic courses in rhetoric, mathematics, psychology, and education.
- Provision for the improvement of reading, writing, and study skills through expanded use of the Reading and Study Methods Clinic and the Writing Laboratory.
- Development of a faculty and student tutoring system to assist students when needed. The tutors help the students learn the substance of the material, as well as help them learn how to approach and master the subject.
- Establishment of an office with trained staff to help and counsel students on the myriad problems and questions they face, including the complexities which arise from being part of a large and diverse university.
- Development of programs for precollege orientation to enable the students to begin their college experience with greater awareness of what it means to be a student at the University of Illinois at Urbana-Champaign.
- Specially trained staff to work closely with students to provide general assistance and counseling in a variety of areas: academic, social, personal, and financial.

APPLICATION

Applicants for participation in the program must submit completed application forms for admission to the University and arrange for their high school transcripts and test scores to be sent to the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801. The student must also complete the University Financial Aid Application, the Parents' Confidential Statement of the College Scholarship Service, and the Illinois State Scholarship Commission application form.

Application forms and additional information about the program may be obtained from the Office of Admissions and Records.

Opportunities for the Physically Handicapped

The Division of Rehabilitation-Education Services provides special facilities and services for students with permanent physical disabilities: paraplegics, triplegics, polios, spastics, deaf, blind, and others. Physically handicapped students ordinarily live in University residence halls with other students and attend all regular classes.

If it is physically and academically feasible for them to do so, physically handicapped students may pursue any curriculum. There are, of course, limitations on the total number of physically handicapped students that can be accepted as well as limitations on the number that can be accepted in specific curricula at a given time. Preference is given to residents of Illinois, but properly qualified students from other states are considered.

The requirements and procedures for admission are the same as for all students; the handicapped student is expected to meet all admission requirements of the University and of the college and curriculum in which he or she chooses to enroll. Students with physical disabilities should make early application through the office of the director, Division of Rehabilitation-Education Services, University of Illinois at Urbana-Champaign, Oak Street at Stadium Drive, Champaign, Illinois 61820. Each applicant will be sent detailed information covering various aspects of campus life, services and facilities, and the procedures required to gain admission consideration.

Acceptance of physically handicapped students by the Office of Admissions and Records must be supported by joint approval of the McKinley Health Center and the Division of Rehabilitation-Education Services. Since the University may not be able to provide the necessary facilities for all who apply, early application for admission to any semester or the summer session is essential.

Admission of Veterans

Veterans of the armed forces of the United States will be given special admission consideration if it is determined that they have a reasonable chance for success.

Veterans without a high school diploma may meet the admission requirement of high school graduation through satisfactory scores on the General Educational Development (GED) Tests. (See page 28.)

Opportunity also exists for veterans to take proficiency examinations for advanced standing and to receive college credit for certain training, education, and experience received in the armed forces of the United States. (See page 100.)

Attendance in University Courses by Illinois High School Students

Illinois high school students are permitted, while still in high school, to attend University classes for college credit under certain conditions. They may also enroll for college credit in correspondence and extramural courses offered by the office of University Continuing Education.

To qualify for concurrent enrollment in this program a student must be recommended by his high school principal and should have approximately a 4.25 (A= 5.0) grade-point average. Each case is considered on an individual basis. Academic advisement of these students is the responsibility of the University Honors Programs Office.

The courses taken by these selected seniors is work over and above the secondary school curriculum. Grades and course credits will be recorded on the permanent University of Illinois at Urbana-Champaign record of the student and will appear on any official transcript issued. If the student enters the University after graduating from high school the courses will be credited toward University graduation if applicable to the chosen degree.

Students applying for admission or readmission under the provisions of this program should be prepared to submit the following materials upon request.

- A $20 check or money order payable to the University of Illinois in payment of the nonrefundable application fee. (See page 69.)
- An application for admission or readmission to the University (not required of students enrolled under this plan in the immediately preceding semester or summer session).
- An official copy of the student's high school transcript covering all work completed in high school and courses in progress, together with ACT or SAT test scores if available. Acceptance under this program does not guarantee later acceptance as a degree candidate.
- A letter of recommendation from the high school principal. This recommendation must include a statement of the University course or courses to be taken and certify that the program will not interfere with the completion of requirements for graduation from high school.

Information and application papers for prospective students in this program may be obtained from the Associate Director, University Honors Programs, University of Illinois at Urbana-Champaign, 1205 West Oregon Street, Urbana, Illinois 61801.

Students interested in correspondence study should write directly to the Director, Correspondence Courses, University Continuing Education, University of Illinois at Urbana-Champaign, 104 Illini Hall, Champaign, Illinois 61820, for their application instructions. It is suggested that students comply as nearly as possible

with the semester system of study and apply at least two weeks prior to the beginning of any semester in which they wish to pursue correspondence study. For the summer months, applications should be submitted no later than the middle of May. Regular University fees, as outlined on page 68, are assessed for these registrations.

Early Admission

The Early Admission Program is one aspect of a four-year study of time-shortened degree programs, which is being performed at the Urbana-Champaign campus under the auspices of the Carnegie Corporation. Students in the program are high school seniors who have discontinued their high school attendance, and who have come to the campus a year early to start their college career. Because it is experimental the program admits only a limited number of students. Students in the program are enrolled in regular four-year curricula.

To enter the Early Admission Program, students must meet general admission requirements of the University, except that they need not have a high school diploma. They must have completed the junior year in high school earning approximately 15 units towards the diploma, be in good academic standing, and receive the recommendation of their principal and other high school personnel who know the caliber of their work. Applicants must submit an application for admission, an official copy of their high school transcript, ACT or SAT test scores, and three recommendations from high school personnel, and must come to the campus for an interview.

Inquiries about the Early Admission Program may be addressed to the Director of the Three-Year Baccalaureate Study, Professor K. Broadrick, University of Illinois at Urbana-Champaign, 1205 West Oregon Street, Urbana, Illinois 61801.

Delayed Admission

BEGINNING FRESHMEN IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

Beginning freshman applicants who have been approved for admission to the College of Liberal Arts and Sciences may request that their admission be delayed for a maximum of one year. Applicants who wish to consider this alternative should request further information from the Office of Admissions and Records at the time they accept an admission offer since the program is limited.

Concurrent Enrollment

STUDENTS AT PARKLAND COLLEGE AND THE URBANA-CHAMPAIGN CAMPUS

Students in good academic standing at Parkland College and at the University of Illinois at Urbana-Champaign may concurrently enroll in courses offered by the opposite institution if such courses are not available at the student's primary campus. Approval for concurrent enrollment must be obtained from the dean of students at Parkland College and the office of the college concerned at the Urbana-Champaign campus.

Concurrent enrollees pay the tuition and fees regularly assessed at each institution in accordance with the amount of work taken.

STUDENTS IN HIGH SCHOOL

See Attendance in University Courses by Illinois High School Students on page 58.

Study Away from Campus

The University permits students who have been enrolled on campus for at least a semester or summer session, with the approval of their adviser and the appropriate department and college offices, to undertake independent study away from campus, either in the United States or abroad.

Colleges and departments may establish variable credit courses which permit such students to continue enrollment in the University upon payment of an appropriate fee. Final determination of credit is made by the department and college concerned, on completion of the program of study.

Overseas study programs which are offered by each college are described in the individual college sections of this catalog.

Independent Study and Individualized Programs

In order to increase flexibility within established curricula to meet the special needs of students, the faculty of each department may establish a special course for independent study on or off campus, for experimentation, or for seminars on topics not treated by regularly scheduled courses. Requests for initiation of the course and suggestions for areas of study may be made by students or the course may be initiated by faculty members. Such courses may be offered with the approval of the faculty member involved and the department head.

The various colleges may treat formal curriculum requirements with sufficient latitude to permit development of individualized programs while maintaining those aspects of the curriculum which are indispensable to the area of specialization being pursued. No prior administrative approval is required for such modifications. Faculty members may establish a modified curriculum for special groups of students, or a student may initiate a request for curriculum modification.

STUDENT SERVICES

Counseling Services

Many people are available on campus to help students with various kinds of problems.

Staff members of the Office of Admissions and Records, 177 Administration Building, provide admission counseling and general information about the University including registration requirements, tuition and fees, identification cards, and student academic records.

The vice-chancellor for campus affairs and his staff are responsible for most matters involving student welfare and activities. The offices of Campus Organizations and Programs, Student Services, Housing, and Student Financial Aids are available to help students with problems concerning personal adjustment to campus life, suitable housing, part-time employment, financial assistance, and interpretation of University rules. They also advise students on matters relating to fraternity and sorority pledging and student organizations. Staff in other offices — Career Development and Placement, Foreign Student/Staff Affairs, Health Professions Information — work with the groups of students identified by the office names. If a student does not know exactly where to find help, he should contact the Student Assistance Center, lobby, Student Services Building, (217) 333-4636. The staff there will refer him to the appropriate agency.

Advisers, academic deans, heads of departments, and other faculty members devote much of their time to advising students on college requirements and programs of study. During advance enrollment and registration, special advisers help students select courses and arrange their class schedules.

The Psychological and Counseling Center, 206 Student Services Building, provides students with aptitude testing services and professional counseling. Through these services students can obtain information about their abilities, interests, and personality to help them select a program of study and a vocation. Special help is provided for those who do not concentrate as well, read as rapidly, or study as efficiently as they are capable of doing. Counselors and psychologists are also available to help students with personal and psychological problems.

University Aids for Improving Students' Academic Performance

READING AND STUDY METHODS CLINIC

Training in developmental and remedial reading and efficient study methods is available to students at the Reading and Study Methods Clinic, 219 Student Services Building, a department of the Psychological and Counseling Center. The work in the clinic is voluntary and does not carry credit. There are no fees charged for this service. Training in study methods and reading is accomplished primarily in small groups; however, individual training is provided when necessary.

SPEECH AND HEARING CLINIC

The clinical facilities and services of the Speech and Hearing Clinic, third floor, 505 East Green Street, are available for examination, consultation, and therapy. Free services are extended to University students who have impaired hearing, speech deviations, or language problems. Students may call for information, or they may be referred by instructors or other interested individuals.

ENGLISH WRITING CLINIC

Any student who is not enrolled in a freshman rhetoric course and who has a writing problem (spelling, organization, punctuation) may consult the English Writing Clinic, 311 English Building. Office hours are from 8:00 a.m. to 12:00 noon and 1:00 to 5:00 p.m., Monday through Friday. All work in the clinic is done in individual conferences and attendance is voluntary. A student may seek help on his own initiative or he may be referred to the clinic by his instructors or by the dean of his college.

WRITING LABORATORY

Rhet. 103 — Writing Laboratory, is open to any Educational Opportunity Program (EOP) student in conjunction with his regular rhetoric courses. If possible, classes are limited to no more than four students. A student may enroll on his own initiative or may be referred by his rhetoric instructor.

The course meets two hours a week and the student receives 1 semester hour of credit on a satisfactory/unsatisfactory basis. (See page 98.) One hour a week is devoted to a systematic study of grammar and the basic principles of writing. The other hour is devoted to the individual writing problems of the student. The course may be repeated for a total of 2 semester hours of credit.

Although Rhet. 103 is designed primarily as an adjunct to Rhet. 104, 105, 108, and Sp. Com. 111, 112, the Writing Laboratory offers assistance on papers and reports assigned in any other course.

SUPPORTIVE INSTRUCTION

Academic assistance is available to students in the Educational Opportunities Program (EOP) as described on page 56. Some departments have established special courses and/or special sections in existing courses for this purpose and a faculty and student tutoring system has been developed.

Medical Services

All students enrolled in credit courses and in attendance at the Urbana-Champaign campus are assessed a hospital-medical-surgical (HMS) fee which covers two separate functions: health service at the McKinley Health Center and group health insurance.[45]

[45] See page 74 for waiver of the HMS fee.

HEALTH SERVICE

The McKinley health service portion of the HMS fee supports the medical services available at the McKinley Health Center located on campus. Dependents are not eligible for care at the health center unless they are also enrolled students at the Urbana-Champaign campus. There are four basic types of care available at the McKinley Health Center: routine office care (outpatient section), care requiring hospitalization (inpatient section), care for injuries or acute illnesses (emergency room), and mental health care (outpatient clinic and inpatient hospitalization).

Health service physicians are available for general medical care and advice while the student is on campus. They are experienced clinicians, most of them having practiced for years as family physicians. Students may consult the health service physician of their choice in his office by appointment. Care is similar to that offered by a private, general physician. A wide range of diagnostic tests is available to the health service physician, including laboratory procedures, x-ray examinations, and electrocardiograms. A limited pharmacy provides drugs for students when they are under the care of a health service physician and when he orders prescription medication available from the pharmacy.

The inpatient section of McKinley Health Center (McKinley Hospital) is a thirty-two-bed medical hospital owned by the University. It is fully accredited by the Joint Commission on Accreditation of Hospitals. The medical staff includes both community and health service physicians.

A health service physician is available twenty-four hours a day for students or employees injured on the job who require emergency care.

Health service care provided by the McKinley Health Center does not depend on and is not reimbursed by any insurance plan the student may have.

GROUP HEALTH INSURANCE

The University Insurance Plan provides worldwide hospital-medical-surgical coverage and the insured student has a free choice of any legally qualified hospital or licensed physician (McKinley health services excepted). The coverage is provided on a semester basis and includes all holidays in the semester and the period between semesters. The policy provides hospital-medical-surgical insurance up to $10,000 as defined in the insurance certificate furnished to each student at registration.

Summer Coverage

Students enrolled in the second semester who do not plan to attend the summer session may elect to extend the insurance for the entire summer vacation period by making application and paying the insurance portion of the HMS fee to the Insurance Office, University of Illinois at Urbana-Champaign, B6 Coble Hall, 801 South Wright Street, Champaign, Illinois 61820, between April 1 and through the fifth day of instruction of the summer session. Coverage of the insured student's eligible dependents may also be extended for this period.

Exemption from the Insurance Fees

Students presenting evidence of equivalent medical insurance coverage will be exempted from payment of the fee for the University Insurance Plan upon approval of a petition submitted to the University Insurance Office within the first ten days of instruction in any semester, or within the first five days of instruction in the summer session. This also may be accomplished in the Armory during regular registration.

Housing

Housing for students at the University of Illinois is provided in University residence halls, fraternities, sororities, private residence halls and homes, and cooperative houses.

The Board of Trustees of the University has authorized the establishment of housing standards to make certain the living accommodations for single undergraduate men and women serve the best interests of the students. These standards apply equally to University-owned and privately owned housing which is available to students.

Present regulations require that all single undergraduate men and women students live for the entire academic year in housing which meets these standards and is certified by the University, unless the student reaches the age of twenty-one or achieves 60 semester hours of academic credit by August 15 of the academic year.

Housing which is certified includes University residence halls, fraternities and sororities, and privately owned housing which meets University standards. Within this system, there is a variety of rates and services offered. Room visitation guidelines subject to the desires of the housing operator and dependent upon parental consent are determined by student vote in each housing unit or section.

Information about all types of housing is given in greater detail in a brochure, *Student Housing*, which is mailed to each student with his Permit to Enter the University. If additional information is needed, the student may write to the Housing Information Office, University of Illinois at Urbana-Champaign, 420 Student Services, 610 East John Street, Champaign, Illinois 61820.

Students and parents are encouraged to visit the Housing Information Office to discuss housing arrangements with a housing consultant. Office hours are maintained from 8:00 a.m. to 5:00 p.m., Monday through Friday, except on all-campus holidays.

UNIVERSITY POLICY ON NONDISCRIMINATION IN HOUSING

The University of Illinois is committed to a policy of nondiscrimination in housing with respect to race, religion, and national origin. University-owned housing facilities are operated on this basis. Privately owned housing which is University certified or listed must also be operated in compliance with this policy. Intent to comply with this policy is evidenced by the filing of a pledge with the University Housing Division not to discriminate on the grounds of race, religion, or national origin. A Housing Review Committee has been appointed by the chancellor to assist in the implementation and enforcement of this policy.

If anyone has reason to believe that an owner or manager of certified housing or any other listed housing has refused or failed to rent to an individual because of the individual's race, religion, or national origin, this information should be communicated directly to the chairman of the Housing Review Committee or to any other member of the committee. The individual who alleges discrimination need not be University affiliated; furthermore, the particular rental unit involved in the alleged discrimination need not be one that is itself listed with the University provided the owner or manager has a nondiscriminatory pledge on file.

UNIVERSITY RESIDENCE HALLS

University-owned residence halls for men and women students are planned to provide each student with the best possible living and learning conditions. High scholarship standards are encouraged. Student government experiences, intellectual and cultural programs, social programs, recreational facilities, and association with mature and trained residence staff members provide opportunity for sound academic and social development.

Approximately 4,700 men and 4,200 women live in University residence halls. Any single undergraduate student qualified to enter the University may apply for residence hall accommodations. Room assignments are made without regard to a student's race, religion, or national origin.

Prospective new students or transfer students should also consider the merits of certified privately owned housing in planning living arrangements.

HOUSING FOR MEN

Housing available for single undergraduate men includes the University residence halls, the fraternities, and the certified private student homes and residence halls. Housing arrangements should not be finalized until the student has been accepted for admission.

Residence Halls

University residence halls for men are located at points convenient to most areas of the main campus. Individual halls accommodate from 250 to 650 students, largely in rooms for two persons, although there are some single and triple rooms. Residence halls offer a room and board plan, with twenty meals served each week, but room-only contracts are available in one hall. In 1974-75 rates per person for room and board for one semester of approximately sixteen weeks were $611 for a double accommodation plus $25 per person in the four newest halls. Those rates are *subject to change,* and rates for 1975-76 may be approximately 10 percent higher. Generally, rates have had to be increased annually because of increased operating costs.

A University residence hall application form is sent to each student who is accepted for admission. The completed application must be returned promptly if the student desires University residence hall accommodations.

Fraternities

There are forty-nine nationally affiliated fraternities with approximately 2,500 members at the Urbana-Champaign campus. These fraternities have living accommodations for their members with an average occupancy of fifty men. The opportunity for membership in a fraternity exists whether the student lives in a fraternity house or not. Cost for room and board in a fraternity house varies, but the average cost was $650 per semester in 1974-75.

The fraternity rush period for high school seniors normally occurs in late April, beginning on a Friday evening and extending through Sunday afternoon. During this time, prospective members may visit various fraternity chapters to which they have been invited.

Information on fraternities and registration forms for the formal rush weekend are sent to each eligible student after he has been admitted to the University.

After the spring rush weekend, men may also participate in informal rushing and pledging at other times during the summer and the school year. Additional information on fraternities may be obtained from the Interfraternity Council, University of Illinois at Urbana-Champaign, 274 Illini Union, Urbana, Illinois 61801.

Privately Owned Men's Housing

Private facilities-certified homes ranging in capacity from 5 to 50 students accommodate about 700 students. These facilities vary in size, location, and services. Room and board are available in some; others furnish room only. Contracts are usually negotiated on an academic-year basis. Many have student organizations and participate in University activities. In most instances it is necessary, and the University recommends, that the student visit the campus and arrange for the accommodations by personal interview. Private homes furnishing room and board charged from $600 to $700 a semester in 1974-75. Room-only facilities ranged from $60 to $90 per month.

Private facilities-certified residence halls are also available. These units range in capacity from 50 to 700 students. Most of these residence halls provide coeducational housing similar to several of the University residence halls and offer various room and board plans. Supervised apartment-type suites are also available in this housing category. Approximate costs for one academic year ranged in 1974-75 from $1,300 to $1,800 depending on the options selected. Students are invited to visit the campus to inspect these facilities. However, arrangements can be made by mail with most of these halls. A list of the halls can be obtained by writing to the Housing Information Office.

HOUSING FOR WOMEN

Single undergraduate women have a choice of several types of approved housing accommodations: University residence halls and a limited number of cooperatives, twenty-three sororities, privately owned student homes and residence halls, and four privately sponsored cooperative homes. Approved facilities are inspected by the University. Housing arrangements should not be finalized until a Permit to Enter the University has been granted by the Office of Admissions and Records.

Residence Halls and Cooperatives

University residence hall accommodations for women are located at points convenient to the main campus. Single, double, and triple rooms are available but most rooms accommodate two persons. In 1974-75 double room rate for room and board was $591 a semester per occupant (approximately sixteen weeks) plus $25 per person in the four newest residence halls. Room-only contracts are also available.

Accommodations in University cooperative work-plan houses are also available. In these units the residents work approximately seven hours a week, performing household duties. In 1974-75 the cost of room and board was $350 per semester. Cooperatives offering room with kitchen privileges charged $235 per semester.

The rates quoted above for University-operated facilities are subject to change, and rates for 1975-76 may be approximately 10 percent higher. Generally rates have had to be increased annually because of increasing operating costs. A University residence hall application is sent to each student who is accepted for admission. The completed application should be returned promptly if the student desires accommodations in University-owned facilities.

Sororities

Membership in sororities is by invitation. Invitations are issued following formal and/or informal rush parties. In most cases upperclassmen pledged by sororities move to the chapter house of their choice at the beginning of the next semester. Freshmen pledged to sororities move to the chapter house of their choice at the beginning of their sophomore year.

The major, formal rush occurs in the fall, with informal rush periods in the winter and spring. The dates for the rush periods and a description of the kinds of rush may be obtained by writing the Panhellenic Council, 274 Illini Union, University of Illinois at Urbana-Champaign, Urbana, Illinois 61801.

Privately Owned Women's Housing

Privately owned organized houses accommodating from 4 to 56 women are available. Some offer both room and board, others provide a room only or a room with kitchen privileges, and some offer a cooperative work plan. In 1974-75 rates in these units varied from approximately $600 to $700 a semester for room and board. A room with kitchen privileges generally costs from $60 to $90 a month. Houses with cooperative work plans required approximately seven hours of work per week and charged from $375 to $450 for room and board for one semester in 1974-75.

Privately owned residence halls, ranging from large, coeducational room-and-board residence halls to small, supervised, suite-living arrangements, are also available. In 1974-75 rates ranged from approximately $1,300 to $1,800 for an academic year, depending on the accommodations selected.

A list of vacancies in each type of accommodation is available from the Housing Information Office. Students and parents visiting the campus to make housing arrangements are encouraged to first consult the staff at that office.

HOUSING FOR MARRIED STUDENTS

Married undergraduate students, for the most part, must rely on the local community to meet their housing needs. A limited number of University-owned apartments is available to undergraduate married students under a priority system. An application brochure can be obtained by writing to the Married Student Housing

Office, University of Illinois at Urbana-Champaign, 1902-A Orchard Street, Urbana, Illinois 61801.

A listing of privately owned furnished and unfurnished apartments with rental rates, distance from campus, etc., is available for review in the Housing Information Office.

Generally speaking, March 15 to July 1 and November 1 to December 15 are considered the most desirable times to visit the campus to arrange for living accommodations for the first and second semesters, respectively.

The following price ranges for furnished and unfurnished apartments reflect local housing costs.

One- and two-room units.....$90-150 per month
Three-room units (one bedroom).....$125-225 per month
Four rooms and larger (two and three bedrooms).....$150-325 per month

Illini Union

The Illini Union is the University's campus community and recreation center. It is a gathering place for students and faculty to meet, to develop leisure-time interests, and to carry on a program of activities outside the classroom. All students may participate in the programs sponsored by Illini Union Student Activities (IUSA). The Illini Union is also used for conferences, short courses, and meetings sponsored by University departments.

The Illini Union provides a cafeteria, a snack bar, waiter-service dining rooms, a vending-service dining room, bowling lanes, a billiard room, art galleries, a browsing library, two bookstores, student organization offices, a campus information office, a merchandise sales counter, a ticket office, a University lost and found service, checkrooms, a duplicating and sign making service, lounges, guest rooms, and numerous multipurpose rooms for luncheons, dinners, dances, and meetings.

Placement Service

The University Career Development and Placement Office, 2 Student Services Building, and specialized placement offices in the individual colleges are available to help students find postgraduation employment. This service, which is provided without charge, is also available to alumni.

The individual placement offices maintain libraries of specialized vocational literature, make arrangements for hundreds of employer representatives to conduct interviews on campus, and provide employment counseling. Psychological testing for vocational guidance purposes is available at the Psychological and Counseling Center, 206 Student Services Building. In addition, a comprehensive collection of vocational literature is maintained in the Reference Room of the main Library.

FEES AND EXPENSES

Estimated expenses for unmarried undergraduate students at the Urbana-Champaign campus, exclusive of such variable items as major articles of clothing and recreation, are given in table 2 on page 67 in a budget covering an academic year of two semesters. The tuition, fees, and other charges quoted in this budget are those authorized at the time of publication of this catalog, but are subject to change.

In certain fields such as art, architecture, and engineering, costs of textbooks and other school supplies are somewhat higher. The cost of room and board could be lowered by arranging for a triple instead of a double room or by living in cooperative housing. The miscellaneous item could be reduced by careful attention to personal spending.

Table 2: Estimated Expenses for One Academic Year for a Full Program of Study *(Subject to Change)*

	Illinois Residents	*Non-residents*
Tuition	$ 496	$1,486
Required fees	194	194
Textbooks and other school supplies	196	196
Meals and housing Includes double room and board residence hall charges of $1,222 for men and $1,182 for women and provision for Sunday evening meals and meals during fall and spring registration which are not included in University residence hall rates	1,330	1,330[1]
Travel allowance	120	120[2]
Personal expense Includes cost of clothing and personal care at moderate level	516	516
Total, two semesters	$2,859	$3,842

[1] Amount was based on 1974-75 estimate and can be expected to increase in 1975-76 and thereafter.

[2] An additional $120 travel allowance must be provided for students from states not contiguous to Illinois.

A deferred payment plan, explained on page 69, is available to students who need to pay tuition and fees and room and board costs in installments.

Tuition and Fees (Subject to Change)

Tuition and fees are assessed each student according to his residence classification and the number of credit hours for which he registers according to the tuition and fees schedule in table 3[46] on page 68.

Students must pay the assessed tuition, fees, and residence hall charges in full at time of registration or make arrangements to pay them on the installment basis. (See page 69.) The rules governing assessment of tuition and fees and exemption from payment begin on page 71.

ZERO-CREDIT COURSES AT URBANA-CHAMPAIGN

Students (except those holding exemptions) taking one or more courses for zero credit, but no courses for credit, are assessed tuition and fees as follows:

- *For study on campus:* Range IV tuition and fees. (No charge will be assessed, however, for University employees who register, at the request of their department, only in zero-credit courses especially established to improve the work of the employee.)
- *For study off campus,* including graduate registration in absentia: Range IV tuition but no service fee and no hospital-medical-surgical fee.

Students taking one or more courses for zero credit with one or more courses for credit are assessed tuition and fees on the basis of the credit course(s) only.

[46] A separate tuition and fees schedule for medical students enrolled in the School of Basic Medical Sciences is available on request from the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801.

IMPORTANT

Financial aid based on need is available to undergraduates through the Illinois State Scholarship Commission (ISSC). The vast majority of ISSC applicants from Illinois families with incomes of $12,000 a year or less receive awards *which cover most or all of the University's mandatory tuition and fees charges.*

Many of those whose family incomes are higher also receive awards. In each case, the family's own particular financial circumstances are the sole criterion for determining award eligibility. See page 79 for further information regarding ISSC and other sources of financial assistance.

Table 3: Undergraduate, Graduate, Law, and Veterinary Medicine Tuition and Fees *(Subject to Change)*

SEMESTER	*Full Program*		*Partial Programs*				
	Range I		Range II		Range III		Range IV
	12 semester hours and above 3 units and above		Above 5 but less than 12 semester hours Above 1¼ but less than 3 units		Above 0 through 5 semester hours Above 0 through 1¼ units		0 credit[1] only
	Illinois Resident	Non-resident	Illinois Resident	Non-resident	Illinois Resident	Non-resident	Resident and Non-resident
Tuition (except those holding exemptions)	$248	$743	$170	$500	$ 93	$258	$47
Service fee	58	58	37	37	15	15	8
Hospital-medical-surgical fee[2]	39	39	39	39	39	39	39
Total	$345	$840	$246	$576	$147	$312	$94

EIGHT-WEEK SUMMER SESSION	*Full Program*		*Partial Programs*				
	Range I		Range II		Range III		Range IV
	6 semester hours and above 1½ units and above		Above 2½ but less than 6 semester hours Above ¾ but less than 1½ units		Above 0 through 2½ semester hours Above 0 through ¾ unit		0 credit[1] only
	Illinois Resident	Non-resident	Illinois Resident	Non-resident	Illinois Resident	Non-resident	Resident and Non-resident
Tuition (except those holding exemptions)	$124	$372	$ 85	$250	$47	$129	$24
Service fee	29	29	22	22	8	8	4
Hospital-medical-surgical fee[2]	39	39	39	39	39	39	39
Total	$192	$440	$146	$311	$94	$176	$67

[1] See Zero-Credit Courses at Urbana-Champaign on page 67.
[2] See Medical Services on page 61.

Table 3 (cont.)

TWELVE-WEEK SUMMER TERM (SOCIAL WORK AND INSTITUTES) AND ELEVEN-WEEK SUMMER LAW PROGRAM[3]

	Full Program		*Partial Programs*				
	Range I		Range II		Range III		Range IV
	9 semester hours and above 2¼ units and above		Above 4 but less than 9 semester hours Above 1 but less than 2¼ units		Above 0 through 4 semester hours Above 0 through 1 unit		0 credit[1] only
	Illinois Resident	Non-resident	Illinois Resident	Non-resident	Illinois Resident	Non-resident	Resident and Non-resident
Tuition (except those holding exemptions)	$165	$495	$113	$333	$ 62	$172	$31
Service fee	44	44	29	29	15	15	8
Hospital-medical-surgical fee[2]	39	39	39	39	39	39	39
Total	$248	$578	$181	$401	$116	$226	$78

[3] Students registered in *either* one of the five and one-half week summer law sessions pay one-half of the tuition and service fee established for the eleven-week term, rounded to the next higher even dollar, and one-half of the credit amounts indicated apply in Ranges I, II, and III. They are subject to the same hospital-medical-surgical fee applying to registrants in the eight-week summer session.

Application Fee

Each applicant for admission to the University of Illinois at Urbana-Champaign must submit with his application a nonrefundable application fee of $20. (See Application Fee — Exemptions and Waivers on page 71.) This fee is used to help defray processing costs and is nonrefundable to both approved and denied applicants who submit partial as well as complete applications prior to the date all spaces are filled in the college and curriculum of their choice. Application fees will be returned to students applying for admission to programs for which applications are not being considered either because all spaces are filled or the desired program is not being offered.

Exemption from one or more of the charges for tuition and fees is not considered a sufficient basis for waiver of the application fee. Students holding statutory tuition waivers must pay the application fee.

Applicants for admission to the Graduate College who anticipate receiving an assistantship are required to pay the application fee since admission must precede their appointment as an assistant.

Extramural degree applicants may have the fee deferred until they apply for work in residence.

Installment Plan for Payment of Fees and Housing Charges

Students enrolled on campus may arrange during registration to pay tuition, fees, and University residence hall charges (single student housing only) on an installment basis. This plan does not apply to registration in extramural and correspondence courses.

Tuition, fees, and residence hall charges for each of the first and second semesters are collected in four installments, the first payable at registration and the others

in each of the following months. Summer session charges are payable approximately one-half at registration and the remainder during the following month.

Students paying tuition and fees by installments are assessed a $2 service charge. An additional service charge of $2 is assessed for each flight instruction course fee paid on the installment plan. There is no service charge for the installment payment of University housing accounts. Arrangements for paying tuition and fees on the installment plan are made during regular registration. Arrangements for paying housing accounts on the installment plan are made at the time the contract is signed, or during registration.

Refunds

CANCELLATION OF REGISTRATION

A continuing student who pays tuition and fees for any semester, term, or session and who subsequently cancels his registration prior to the first day of classes of that semester, term, or session shall be refunded the full amount of his payment, including the usually nonrefundable charge.

WITHDRAWAL FROM THE UNIVERSITY

A student who has paid tuition and/or fees, and who withdraws from the University for reasons other than active duty in the armed services or other approved national defense service, during any refund period, shall be assessed a nonrefundable charge in the amount of one-half of the service fee plus the hospital-medical-surgical fee (rounded if necessary to the next higher even dollar) or $30, whichever is greater. The student who withdraws continues to be covered by the health insurance and health services provisions of the hospital-medical-surgical fee, if originally paid, until the close of the term. For students who have not paid the hospital-medical-surgical fee, the nonrefundable charge shall be reduced by the amount of that fee. Refund periods are as follows:[47]

- In a semester, twelve-week term, or eleven-week summer law program, *full refund,* except for the nonrefundable charge, during the first ten days of instruction; no refund thereafter.
- In an eight-week summer session, *full refund,* except for the nonrefundable charge, during the first five days of instruction; no refund thereafter.
- University terms of different lengths, refund periods are determined proportionately in accordance with the above principles.

WITHDRAWAL FOR MILITARY AND OTHER NATIONAL DEFENSE SERVICE

Special refunds are provided to students who withdraw for active duty in the armed forces or other approved national defense service as described in the *Code on Campus Affairs and Regulations Applying to All Students.*

REDUCTION OF PROGRAM

Any student who has paid tuition and/or fees and who reduces his registration to a lower fee assessment range receives a refund of the full amount of the difference in tuition and fees specified for such schedules provided the change is made during the periods designated above for refund of tuition and fees in case of withdrawal from the University. Thereafter, no rebate is allowed.

VISITORS

A person registered as a visitor who desires to withdraw receives a full refund of the visitor's fee, if originally charged, provided he makes a personal request for a

[47] In case of extenuating circumstances, such as medically documented serious illness or injury, exceptions to these refund periods may be made by the director of admissions and records.

refund at the Office of Admissions and Records within the refund periods designated for Withdrawal from the University on page 70. Thereafter, no refund is made.

FLIGHT TRAINING

A student who withdraws from a flight-training course receives a refund of the full flight-training fee during the first ten days of instruction in a semester or the first five days of instruction in the eight-week summer session; thereafter no refund is made.

Assessments and Exemptions

Tuition and fees are assessed all students on the basis of their residency status (resident or nonresident of Illinois) and the number of credit hours they are taking each term. (See Residence Classification on page 100.) Under conditions specified below, certain students may be exempt from the payment of tuition and fees.

Employees of the University or Allied Agencies. Unless otherwise exempted by Board of Trustees authorization, the payment of tuition and fees is required of academic employees of the University or allied agencies under appointment for less than 25 percent of full-time services, and of nonacademic employees under appointment for less than 50 percent of full-time services.

For tuition and fees assessment purposes, a staff appointment must be to an established position for a specific amount of time and a salary commensurate with the percentage of time required, and it must require service for not less than three-fourths of the academic term, defined as the period between the first day of registration and the last day of final examinations. Specific dates marking the end of the three-fourths of the term are established by the chancellor or his designee. *Staff tuition and fees privileges do not apply to students employed on an hourly basis in either an academic or nonacademic capacity,* or to persons on leave without pay.

University employees appointed to established civil service positions whose rates of pay are determined by negotiation, prevailing rates, and union affiliation, are *not* considered as paid on an hourly basis and are entitled to the same tuition and fees privileges accorded to other staff members under the regulations.

Any student who resigns his staff appointment, or whose appointment is cancelled, before rendering service for at least three-fourths of the term becomes subject to the full amount of the appropriate tuition and fees for that term unless he withdraws from his University classes at the same time the appointment becomes void, or he files a clearance form for graduation within one week following the resignation date.

APPLICATION FEE — EXEMPTIONS AND WAIVERS

Excluded from payment of the application fee are:

- Staff members appointed to established positions for a specific amount of time and for a salary commensurate with the percentage of time required, and persons retired from the academic staff.
- Permanent nonacademic employees who have been assigned to established permanent and continuous nonacademic positions and who are employed for at least 50 percent of full time.
- Staff members of allied agencies so long as they retain tuition and fee waiver privileges.
- Extramural nondegree applicants.
- Summer-session-only graduate degree applicants after their first registration for on-campus work.
- Students registered on one campus of the University who wish to attend another campus for the summer session only.

Waivers of the application fee are authorized for:

- Applicants who, because of extreme financial hardship, cannot meet the cost

of the fee. In general, evidence of extreme financial hardship is receipt of a federal Education Opportunity Grant, waiver of the testing fee by either the College Entrance Examination Board or the American College Testing Program, or evidence of hardship obtained from such sources as the student's institution of previous attendance, his financial aid application, or recruiters for the special programs for disadvantaged students.

- Applicants under approved foreign exchange programs in which the University participates such as the Latin American Scholarship Program of American Universities (LASPAU) and the African Scholarship Program of American Universities (ASPAU), and foreign students participating in approved exchange programs where the waiver of fees is reciprocal.
- Intercampus transfers at the same level: undergraduate to undergraduate or graduate to graduate.
- Applicants denied admission to one campus of the University of Illinois who wish to apply for admission on the same level at another campus. Students applying simultaneously to two campuses must pay the application fee at each campus.
- Students from other universities participating in the Committee on Institutional Cooperation (CIC) program by taking courses at the University of Illinois.
- Graduate and professional applicants whose entry is advanced or delayed by action of their major departments are not required to pay a second application fee.
- University of Illinois students applying for work on a second campus as concurrent registrants, and non–University of Illinois students applying as concurrent registrants from another institution with which the University has a reciprocal agreement.
- Cooperating teachers and administrators who receive assignment of practice teachers.
- Students on leave of absence status are not required to pay an application fee on reentry.

TUITION WAIVERS

Tuition is waived for:

- Holders of tuition waiver scholarships.
- All academic employees of the University or allied agencies on appointment for at least 25 percent but not more than 67 percent of full-time services provided the appointments require service for not less than three-fourths of term. Limits on the amount of academic work that may be taken in the Graduate College by academic employees are given in the *Graduate Programs* catalog. Limits for academic employees registered in the undergraduate colleges are determined by the individual colleges.
- Holders of graduate tuition and fees waivers awarded by the Graduate College.
- Holders of grants or contracts from outside sponsors which provide payments to cover the total costs of instruction.
- Cooperating teachers and administrators who receive an assignment of practice teachers are exempted for one semester, quarter, or summer session for each semester, quarter, or summer session during the calendar year of September through August in which service is rendered.
- University academic employees registered at the request of their departments in zero-credit courses especially established to improve the work of the employee.
- Academic staff members emeriti.
- Nonacademic employees of the University in status appointments or in appointments designed to qualify for status in an established class (e.g., trainee, intern) for at least 50 percent of full-time services who register in regular University courses for not to exceed:

  Six credit hours or two courses in a semester or quarter if on full-time appointment,

Four credit hours if on a 75 percent to 99 percent time appointment, or
Three credit hours if on a 50 percent to 74 percent time appointment, provided that (1) they meet conditions and eligibility for admission as prescribed by the Office of Admissions and Records, (2) are not students as defined in Civil Service Rule 7.7c, and (3) have approval by their employing departments of enrollment and of a makeup schedule to cover any time in course attendance during their regular work schedule.

The waiver of tuition also applies to any additional hours of registration by an employee which keep him within the same fee assessment credit range. An employee whose total registration is in a higher range than that authorized by his tuition waiver pays only the difference between the waiver authorization and the higher range in which his total registration places him.

- Nonacademic employees in a status, learner, trainee, apprentice, or provisional appointment may enroll without payment of tuition in regular courses directly related to their University employment for not to exceed 10 credit hours per semester provided they have made application and received prior approval for enrollment as required by procedures issued by the director of nonacademic personnel and set forth in *Policy and Rules–Nonacademic*.

NONRESIDENT PORTION OF TUITION WAIVERS

Nonresident portion of tuition (if subject to payment of tuition) is waived for:

- All staff members (academic, administrative, or permanent nonacademic) on appointment for at least 25 percent of full-time services with the University or allied agencies, provided the appointment requires service for not less than three-fourths of the term.
- The faculties of state-supported institutions of higher education in Illinois holding appointments of at least one-quarter time, provided the appointment requires service for not less than three-fourths of the term.
- The teaching and professional staff in the private and public elementary and secondary schools in Illinois, such as counselors, school psychologists, school social workers, librarians, and administrators who hold such an appointment at least one-quarter time, and for not less than three-fourths of the term.
- The spouses and dependent children of all staff members (academic, administrative, or nonacademic) on appointment with the University or allied agencies for at least 25 percent full-time service, and of those listed in the second item above. (Dependent children are those who qualify as dependents for federal income tax purposes.)
- The spouses and dependent children of fellows and trainees who are employed as teaching assistants to the extent permitted by their fellowship appointment.
- Persons actively serving in one of the armed forces of the United States who are stationed and present in the state of Illinois in connection with that service and their spouses and dependent children, as long as they remain stationed, present, and living in this state.

Individuals listed in the first five items above (except those indicated below under Summer Session Tuition and Fees Waivers) who are eligible for waiver of the nonresident portion of tuition for the second semester are also eligible for the same waiver in the immediately following summer session.

SERVICE FEE WAIVERS

The service fee is waived for:

- All academic staff members of the University or allied agencies on appointment for at least 25 percent of full-time services, provided the appointments require service for not less than three-fourths of the term.
- Holders of graduate tuition and fee waivers awarded by the Graduate College.
- Students registered in absentia.
- Students registered in approved off-campus courses.

- Holders of grants or contracts from outside sponsors if this fee is charged to the contract or grant funds.
- Cooperating teachers and administrators who receive an assignment of practice teachers are exempted for one semester, quarter, or summer session for each semester, quarter, or summer session during the calendar year of September through August in which service is rendered.
- University academic employees registered at the request of their departments in zero-credit courses especially established to improve the work of the employee.
- Academic staff members emeriti.
- Nonacademic employees of the University exempted from tuition as specified under the last two categories of Tuition Waivers on pages 72 and 73.

HOSPITAL-MEDICAL-SURGICAL FEE WAIVERS

The entire hospital-medical-surgical (HMS) fee is waived for:[48]

- Persons registered for doctoral thesis research in absentia.
- Holders of grants or contracts from outside sponsors if this fee is charged to the contract or grant funds.
- Students for whom this fee has been assumed by the Graduate College.
- University employees registered at the request of their departments in zero-credit courses especially established to improve the work of the employee.
- Persons registered in off-campus courses for zero credit.
- Staff members who are registered as students and who are eligible for the mandatory State of Illinois Employees Insurance Program are ineligible for the Student Insurance Program and the student health services provided by the McKinley Health Center.

Students registered on the Urbana-Champaign campus for courses which are taught entirely off-campus during a given term are required to pay the student health insurance portion ($15) of the hospital-medical-surgical fee, but not the McKinley health service portion ($24).

Upon approval of a petition presented to the University Insurance Office not later than the final day established for refund of tuition and fees, all students presenting evidence of equivalent coverage are exempted from the student health insurance portion ($15) of the hospital-medical-surgical fee. Applications for exemption may be presented at Station 3A during registration or at B6 Coble Hall after registration.

SUMMER SESSION TUITION AND FEES WAIVERS

Summer session tuition and fees are waived as follows:

- Students holding appointments to the close of the final term of an academic year either as employees or fellows, and for whom tuition and/or fees have been provided through waiver or through cash payment by an outside agency, are entitled to a waiver of the same kinds of tuition and fees for the summer session or summer term immediately following, provided they hold no appointments during that summer session. Students holding summer session appointments as fellows or as employees are subject to such tuition and fees as would be assessed in accordance with the principles expressed above.

Special Fees (Subject to Change)

Application Fee

Applicants for admission or readmission to the University must submit with their application a nonrefundable fee (See page 69.) of.....$20.00

[48] Coverage provided by the HMS fee is explained on page 61.

Bicycle Code Violations

Violation for which other penalty is not provided.....$3.00
Failure to pay or appeal violation assessment within five school days after notice, penalty increased to.....$5.00

College-Level Examination Program (CLEP)

Each CLEP examination.....$7.00

Concurrent Registrations

Students concurrently enrolled at the University of Illinois at Urbana-Champaign and another collegiate institution pay the tuition and fees regularly assessed at each institution in accordance with the amount of work taken. Students concurrently enrolled at more than one campus of the University pay at their primary campus the applicable tuition and fees for their total combined registrations.

Correspondence Courses — Tuition

For each semester hour of credit.....$22.00
For each quarter hour of credit.....$15.00
Persons granted a six-month extension of the enrollment period pay for each course an additional charge not covered by scholarships or tuition exemptions.....$5.00

Deposits

Advance Deposit on Tuition and Fees
Law students.....$100.00
Advance Deposit on Total Registration Fee for Experimental Youth Fitness Summer Day School.....$10.00
Housing Contract Deposit (to confirm a contract for University housing)
First semester.....$40.00
One-half of this amount ($20) is applied on the first semester's rent; the other half ($20) is applied on the second semester's rent.
Second semester only.....$20.00
Summer session.....$20.00

Extramural Courses — Tuition

Students who register concurrently in more than one correspondence or extramural course pay the full amount of tuition for each course. Students who register concurrently for courses on campus and for correspondence or extramural study pay the full amount of tuition and fees applicable for each registration.

Holders of staff appointments with the University or allied agencies; holders of tuition scholarships, unless such scholarships are specifically limited by law to courses for residence credit only; and holders of tuition and fees waivers which exempt them from tuition for campus work are also exempt from tuition or the visitor's fee for extramural or correspondence courses begun within the term of the appointment.

A nonacademic employee registered concurrently for campus and extramural or correspondence courses whose total registration exceeds the range authorized by his tuition waiver pays the difference between the waiver authorization and the higher range in which his total registration places him.

Resignation or cancellation of an appointment within the term in which the student registered which has provided exemption from tuition for a correspondence course or extramural course, and prior to completion of at least three-fourths of the required lessons in a correspondence course, or prior to completion of at least three-fourths of an extramural term, shall make the student liable for the full amount of the tuition for the course.

A student exempted from tuition for a correspondence course by reason of a scholarship, staff appointment, or other waiver, who fails to complete the course within the normally allotted time of one year and arranges for extension of the

enrollment period, shall become subject to payment of the full tuition for the course at the time he requests extension of the enrollment period if he no longer holds an appointment which entitles him to exemption. The additional $5 fee required for extension of the enrollment period is considered a fine and is not included in the tuition exemption privileges.

Credit Courses
- For each semester hour or ¼ graduate unit.....$15.00
- For each ¼ hour.....$10.00

Noncredit Courses
- For each 16 hours of instruction.....$15.00

Visitors

Visitors in extramural courses pay the same tuition as students registered in the course for credit. In the case of multiple credit courses, the visitor pays the fee applicable to the lowest credit provided in the course.

Flight Training Courses

In addition to the regular tuition and fees, students taking flight training pay:
- Avi. 101 — Private Pilot.....$700
- Avi. 102 — Orientation Refresher.....$360
- Avi. 105 — Soaring I.....$325
- Avi. 115 — Soaring II.....$325
- Avi. 120 — Secondary Flight.....$790
- Avi. 130 — Intermediate Flight.....$725
- Avi. 140 — Advanced Flight.....$780
- Avi. 200 — Basic Instrument Flight.....$730
- Avi. 210 — Advanced Instrument Flight.....$730
- Avi. 220 — Flight Instructor.....$520
- Avi. 222 — Instrument Flight Instructor.....$410
- Avi. 224 — All Attitude Orientation.....$300
- Avi. 280 — Special Ratings MEL.....$610
- Avi. 291 — Special Ratings and/or Specialized Flight.....$730

(These fees are not included in scholarship and staff fee provisions.)

Identification Photo Cards or Data Carrier Cards — duplicates.....$1.00

Installment Payment Service Charge (See page 69.)

Installment payment of tuition and fees.....$2.00
Installment payment of flight training fees, per course.....$2.00

Late Registration

A student's registration is not complete until his tuition and fees have been paid in full, or he has made arrangements for deferred payment. All students, including those holding staff appointments, who complete registration for work in residence after the close of the regular registration period for any term pay a late registration fine of.....$15.00

(The fine is not covered by scholarships or tuition waivers. It may be waived under exceptional circumstances upon petition to the director of admissions and records.)

Motor Vehicles (See page 101.)

Automobiles
- Nonrefundable annual registration fee, September 1 to August 31.....$5.00
- Penalty for nonregistration.....$5.00
- Parking lot rental per academic year.....$24.00

Motorcycles (including motor scooters and motor-driven bicycles)
- Registration for the year.....$3.00
- For the second semester only.....$1.50
- Violation of operating or parking regulation.....$3.00

NROTC Student Activity Fund Assessment collected by Navy Council....$5.00

Off-Campus Courses

Students registered for credit in off-campus work only are exempt from the service fee. They pay the same tuition, resident or nonresident, assessed for campus registration of equal credit, and the insurance portion ($15) of the hospital-medical-surgical fee.

Students registered in zero-credit courses off campus, including graduate registrations in absentia, pay Range IV tuition but no service fee and no hospital-medical-surgical fee. (See complete statement on zero-credit courses on page 67.)

For the purpose of fee assessment, the designation *off-campus course* refers to field courses, programs of study abroad, or special programs established which *require* that the participants be absent from the campus for the entire semester, term, or session.

Residence Hall Fee

Undergraduate student residents of University residence halls pay each semester a mandatory fee as part of their residence hall contract for their educational, social, cultural, and recreational needs $4.00

Smoking Violations

Students found guilty of violation of smoking regulations are subject to a cash penalty of $1.00

Special Examination

Courses which have been failed $10.00
Graduate Student Language Examinations, for students who fail the first examination $6.50

SEAL Fund (Students for Equal Access to Learning)

Students registered on campus pay this fee during each registration to supplement existing financial aid for needy students. During the first and second semesters a refund is available at the Bursar's Division to those students who do not desire to participate, beginning with the third week of instruction and ending one month later. Refunds for the summer session begin one week after instruction begins and end two weeks later $2.00

Transcript

Each student who has paid all his University fees is entitled upon request to receive without charge one transcript of his record. For each additional transcript the fee is $1.00

No charge is made if the request for a transcript is accompanied by a teacher's certificate application blank, and no charge is made for transcripts of records issued for purposes of admission to the Chicago Circle or the Medical Center campus of the University of Illinois in Chicago.

University Fee for High School Students

High school students, including University High School students, attending the University under the Early Admission Program, pay the same tuition and fees assessed against University students registered for the same amount of credit.

University High School Instruction

University students at Urbana-Champaign who also register in University High School pay, in addition to their University fees, for each half unit each semester (provided that the total additional charges shall not exceed $25 a semester) . . $10.00
Students other than those registered in the University pay a tuition fee for each semester, as follows:

For one course only $10.00
For a full-time high school program ..... None

Unredeemed Check Service Charge

For each check returned by a bank to the Business Office for insufficient funds or other reasons $2.00

Visitor's Fee (Campus Courses)

Persons holding scholarships, tuition waivers, or staff appointments which exempt them from tuition for campus work, unless such scholarships are specifically limited by law to courses for residence credit only, may attend University classes as visitors only, without charge. Persons registered on campus for a full program of courses (Range I) may also attend other courses as visitors without additional charge.

Persons not otherwise registered in University courses and students registered on campus on a partial program fee schedule (Range II, III, or IV) are charged for each course attended, as a visitor only, a fee of..... $15.00

Students who change from credit registration to visitor status *in the same course,* who are not eligible for refund of tuition or fees for the credit registration dropped, are not charged the visitor's fee.

FINANCIAL AID

All students at the University of Illinois at Urbana-Champaign receive financial aid in the form of a tuition subsidy because they attend a state-supported institution. Recently, the annual value of this subsidy was more than $1,000 for every undergraduate student who was a resident of Illinois.

Even with relatively low tuition and fees charges, the cost of a college education can be a financial burden which many families cannot bear alone. The estimated reasonable expenses for a single undergraduate student attending the University of Illinois at Urbana-Champaign are provided in table 2 on page 67. The amount of financial assistance that an undergraduate student may be eligible for is the difference between the total amount of these expenses and the amount of money that the student and his parents or guardians may be expected to contribute to the cost of his education.

Although the Office of Student Financial Aids administers a substantial program of financial aid, the program is inadequate to meet the full needs of all students. *Consequently, financial aid in the form of scholarships, grants, loans, and College Work-Study Program employment from this office is awarded on the basis of demonstrated need.*

Student Employment on Campus and in the Community (page 82), Student Loans from Non-University Sources (page 83), and Specialized Aid Programs (page 85) are sources of financial assistance for students who do not meet the rigorous need requirements of the University-administered aid programs.

No student should hesitate to apply for admission to the University of Illinois at Urbana-Champaign for lack of funds. Some combination of scholarships, grants, loans, and employment can usually be made available *if he or she can demonstrate financial need.*

Because of limited funds available to the University, all prospective and continuing students requiring financial assistance are strongly urged to actively seek scholarships and awards, based on academic or other qualifications, which may be available from national, state, and local organizations.

The primary source of scholarships and grant funds for Illinois undergraduate students is the Illinois State Scholarship Commission (ISSC). Illinois residents should apply to the Illinois State Scholarship Commission if they believe financial concerns are a barrier to attending college in Illinois.

Undergraduate students, whether Illinois residents or not, should apply also for the federal Basic Educational Opportunity Grant (BEOG). Applications are available at the Office of Student Financial Aids.

Illinois State Scholarship Commission (ISSC) Monetary Awards

The Illinois State Scholarship Commission is the most significant source of gift aid to University of Illinois undergraduate students both in terms of number of students receiving awards and in the total value of grant and scholarship assistance. This independent state agency awards grants which may cover up to full tuition and fees costs for Illinois undergraduates attending public or private postsecondary schools in Illinois.

Prospective students contemplating the tuition and fees charges at the University of Illinois should keep in mind that they may qualify to have all or a portion of these charges paid by an ISSC monetary award. During a recent school year 5,903 undergraduates at Urbana-Champaign received ISSC awards; most awards covered full tuition and fees. Tuition and fees charges amounted to $690 per year for resident students, at time of publication of this catalog.

Students who need financial assistance must apply for an ISSC award as early as possible. High school students may obtain applications from their school counselors during October of their senior year. Applications for students enrolled at the Urbana-Champaign campus become available at the Office of Student Financial Aids during December. Applications may also be obtained directly from the Illinois State Scholarship Commission, P.O. Box 607, Deerfield, Illinois 60015. The application period for the academic year usually terminates sometime during the preceding summer. (The date is determined by the ISSC.)

ISSC awards are based solely on demonstrated financial need. It is not necessary to be designated an Illinois State Scholar in order to receive an ISSC monetary award. Awards are for one year only and must be renewed annually. At the present time, a student may receive an award for a maximum of ten semesters and the maximum award may cover only tuition and fees. Recipients must be at least half-time undergraduate students, residents of Illinois, and permanent residents of the United States, and have less than 150 semester hours of credit.

Table 4 shows the percentage of successful ISSC monetary award applicants at various income ranges at public colleges for the 1973-74 academic year. Again, most of the awards covered full tuition and fees charges.

Many students who receive ISSC monetary awards also qualify for scholarship, grant, loan, or employment assistance from the University or other sources to help

Table 4: Percentage of Applicants Receiving ISSC Monetary Awards at Public Colleges by Parental Income, 1973-74

Income Range	*% Receiving Awards*	*Income Range*	*% Receiving Awards*
$ 0– 4,999	99	$12,000–12,999	85
5,000– 5,999	98	13,000–13,999	74
6,000– 6,999	98	14,000–14,999	64
7,000– 7,999	97	15,000–15,999	51
8,000– 8,999	96	16,000–16,999	42
9,000– 9,999	95	17,000–17,999	35
10,000–10,999	93	18,000–18,999	30
11,000–11,999	90	19,000–19,999	25
		20,000–Up	13

meet the costs of books, room and board, and miscellaneous expenses. Although the ISSC and the University student aid programs work in conjunction, they are entirely separate. It is necessary to submit separate applications and to follow separate application procedures to receive consideration for the financial aid offered by both sources. Separate application is also necessary for the federal Basic Educational Opportunity Grant.

Illinois residents who plan to enroll as undergraduate students and those already enrolled are expected to apply for an ISSC monetary award. Action on the University Application for Financial Aid will not be taken until the Illinois State Scholarship Commission has notified the Office of Student Financial Aids of the student's eligibility for a monetary award. Undergraduates, whether Illinois residents or not, are expected to apply for a federal Basic Educational Opportunity Grant.

Financial Aid from the University

Except as noted below, applications to the Office of Student Financial Aids place applicants in consideration for the following types of assistance: (1) gift aid — scholarships and grants, (2) University-funded long-term loans, (3) College Work-Study Program employment.

An applicant does not apply for a particular type of aid since this office considers each application individually and determines the source and amount of aid that can be offered.

The Office of Student Financial Aids does not administer scholarships or grants for students in the Graduate College, the College of Veterinary Medicine, or the College of Law. These students should contact their department heads for information and applications for available scholarships, grants, fellowships, assistantships, and other forms of financial assistance. Additional information on financial aid is also available in the *Graduate Programs* catalog and the *College of Law Catalog*. Graduate and law students may apply to the Office of Student Financial Aids for University-funded long-term loans and College Work-Study Program employment.

Foreign students (noncitizens who are not in the United States as permanent residents) should contact the Foreign Student-Staff Affairs Office for information on financial aid. Foreign students are rarely awarded aid during their first year at the University.

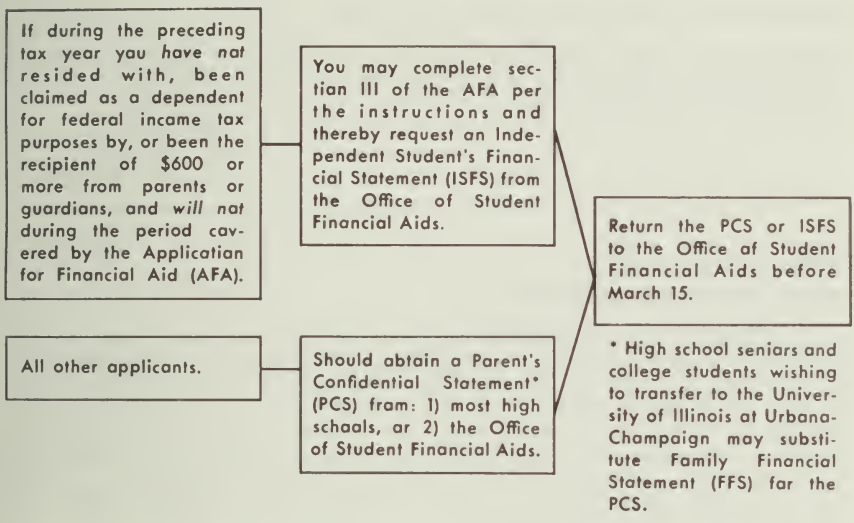
The University participates in the College Scholarship Service of the College Entrance Examination Board and subscribes to the principle that the amount of financial assistance offered a student should be based on financial need. In addition to parental support, it is expected that students will be prepared to assume responsibility for a substantial portion of their college expenses through summer savings and campus employment. Scholarships, grants, and College Work-Study Program assistance are provided by the University to supplement parental support and student self-help, not to replace these sources.

Included with the Application for Financial Aid are instructions to indicate which financial statement the student must submit in order to demonstrate financial need. (See table 5 on page 81.)

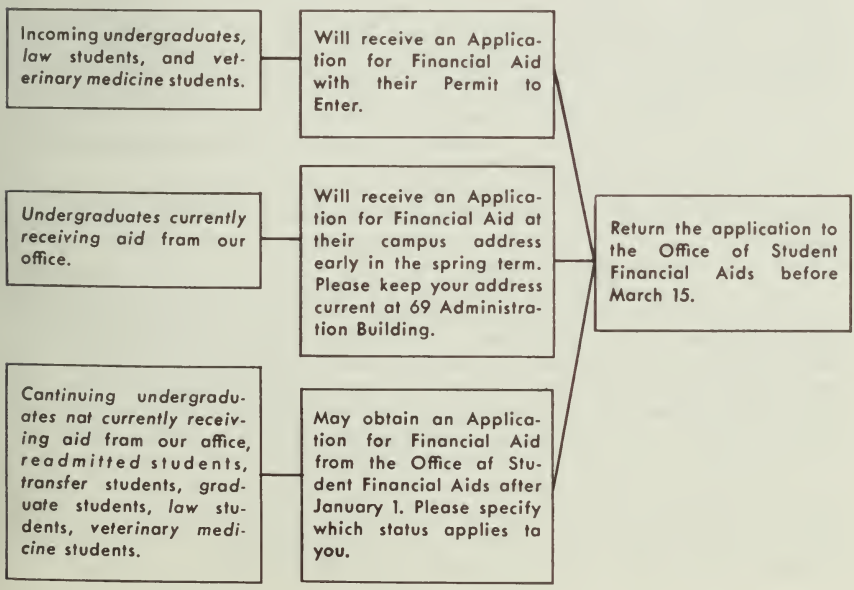
The Office of Student Financial Aids, University of Illinois at Urbana-Champaign, 420 Student Services Building, 610 East John Street, Champaign, Illinois 61820, is open to students, prospective students, parents, and others who desire information and counseling regarding matters of financial assistance. Office hours are: Monday through Friday from 9:00 a.m. to 12:00 noon and 1:00 to 4:00 p.m., except all-campus holidays.

Table 5: How to Apply for Financial Aid through the Office of Student Financial Aids

1. You must file the appropriate financial statement as soon as possible after October 1.



2. Applications for Financial Aid must be filed before March 15 to receive first priority for the following year. Applications received at the Office of Student Financial Aids after March 15 are processed on a first-come-first-served basis.



Basic Educational Opportunity Grant

This is a federal grant for undergraduate students who can demonstrate financial need; it may be used at the college of the undergraduate student's choice. Applications are available through high school counselors, post offices, and university financial offices. Specific eligibility criteria are defined in the application.

Scholarships and Grants from the University

Scholarships and grants require no repayment or employment obligation. The list of undergraduate scholarships and grants offered through the Office of Student Financial Aids given in Appendix A on page 387 is for information only. *Students do not apply for specific scholarships or grants.* The Office of Student Financial Aids reviews all applications for aid and determines who is eligible for scholarship or grant assistance and the source and amount of gift aid to be offered. (See also Specialized Aid Programs on page 85.)

Campus Employment

COLLEGE WORK-STUDY EMPLOYMENT

The University of Illinois participates in the College Work-Study (CWS) Program, a federal program of financial aid for students. A student is authorized to participate in the College Work-Study Program if he is awarded this type of financial aid by the Office of Student Financial Aids. All applicants for aid automatically receive consideration for this type of aid as well as for scholarships, grants, and loans. Most students in this program are employed on campus. If College Work-Study Program employment is included in an aid offer, a student must check with the Office of Student Financial Aids as soon as possible at the beginning of the term to obtain assistance in job placement.

STUDENT EMPLOYMENT ON CAMPUS AND IN THE COMMUNITY

The vast majority of students working to earn a portion of their expenses during the school term are not employed under the College Work-Study Program. For students desiring to work part time, the Office of Student Financial Aids is open from 9:00 a.m. to 12:00 noon and 1:00 to 4:00 p.m. Monday through Friday throughout the year. On-campus jobs are posted on bulletin boards in 420 Student Services Building. For referral to those, you must be carrying a minimum of 12 credit hours and must register with the financial aids employment staff before you can contact the prospective employer. Community jobs are also posted, but with complete information for self-referral.

The University of Illinois at Urbana-Champaign employs several thousand part-time student workers in offices, libraries, laboratories, farms, and food service units. Each year these students earn over $3 million in wages. In addition, many students work in the local community.

Hourly wages for student workers vary according to the type of work and the responsibility involved, but do provide at least the federal minimum wage. Most jobs require from ten to twenty hours of work per week. Earnings are estimated to average from 20 to 30 percent of college expenses. Applicants must realize that many of the more responsible and desirable positions go to upperclassmen who have special training and experience. A student may help his employment opportunities by taking temporary jobs while waiting for a more permanent position.

Freshmen in curricula for which laboratory periods occupy most of the day-hours generally find either food handling work done at meal hours or temporary odd jobs before and after school hours to be most convenient and time conserving. Students in other curricula may improve their employment opportunities by arranging class schedules which leave consecutive hours free each day.

Working during college years may have advantages in addition to the obvious one of financing a college education. The employed college student has a special opportunity to learn how to get along with people. Sometimes part-time employment experience helps a student choose a vocation or is helpful later when following his vocation.

Securing a position and retaining that position through good work is the responsibility of the individual.

When students can, they should draw on savings from summer employment to cut down on the number of hours of work during the school year. Students should begin looking for summer jobs several months before the end of the spring term through their local state employment service and through sources suggested by high school counselors.

Student Loans

LOW-INTEREST LOANS AWARDED BY THE UNIVERSITY

The Office of Student Financial Aids authorizes loans to students who demonstrate financial need. All applicants for University aid are automatically considered for University-funded long-term loans. (See Financial Aid from the University on page 80.) An applicant does not apply for a specific loan fund. The Office of Student Financial Aids (acting for the University of Illinois as lender) determines who is qualified and eligible and the source and amount of the loan to be offered. A list of loan funds administered by the University is given, for informational purposes only, in Appendix B on page 398.

STUDENT LOANS FROM NON-UNIVERSITY SOURCES

The federal government has encouraged the state governments to operate guaranteed long-term student loan programs in conjunction with commercial lenders for students attending college full time. The state of Illinois has such a program for Illinois residents administered through the Illinois State Scholarship Commission. If a student is not an Illinois resident, he should check with the Office of Student Financial Aids for information on guaranteed-loan programs offered in other states.

Although the federal government, the state, and private corporations subsidize and guarantee these loan programs, the loan is actually arranged for and made by the student from a participating commercial lending institution in the applicant's home community (bank, savings and loan association, or credit union). Consequently, the student should first contact the lending institution.

INFORMATION FOR STUDENTS CONSIDERING LOANS

Students who contemplate borrowing money for educational purposes should carefully consider the general terms and repayment requirements of the loans shown in table 6 on page 84.

APPROXIMATE MONTHLY PAYMENT REQUIRED BY LOAN PROGRAMS

Repayment schedules for University-funded long-term loan programs and non–University-funded long-term loan programs (guaranteed loans) are indicated in tables 7 through 9. The monthly payments indicated in table 7, 8, and 9 on page 85 are approximations and are provided only to help the borrower determine the approximate monthly repayments of the loan. Interest charges on the unpaid principal balance will be added to these amounts.

Table 6: General Terms of Long-Term Loan Programs

Loan Program	*Interest Rate*	*Forgiveness*	*Begin Repayments*	*Deferments*	*Minimum Repayments*
UNIVERSITY-FUNDED LONG-TERM LOANS					
National Direct Student Loan (NDSL) $10,000 Aggregate Maximum	3% per year simple interest on the unpaid principal balance; begins with first repayment	Yes, in some cases. Contact Student Loans, 168 Administration Building	9 months after ceasing to be full-time student	Up to 3 years for military service, Peace Corps, Vista, and for period of return to full-time student status	$30 plus interest per month or amount needed to repay principal and interest in 10 years
University of Illinois Long-Term Loan $7,500 Aggregate Maximum	3% per year simple interest on the unpaid principal balance; begins with first repayment, with some exceptions	None	4 months after ceasing to be full-time student	By arrangement with Student Loans, 168 Administration Building	$30 plus interest per month or amount needed to repay principal and interest in 7 years
United States Public Health Service Loan No Aggregate Maximum	3% per year simple interest on the unpaid principal balance; begins with first repayment	Yes, in some cases. Contact Student Loans, 168 Administration Building	12 months after ceasing to be full-time student	Up to 3 years for military service, Peace Corps, and for period of return to full-time student status	$30 plus interest per month or amount needed to repay principal and interest in 10 years
Law Enforcement Educational Loan No Aggregate Maximum	7% per year simple interest on the unpaid principal balance; begins with first repayment	Yes. Contact Law Enforcement Program, Law Enforcement Association Administration, U.S. Department of Justice, Washington, D.C. 20530	9 months after ceasing to be full-time student	Up to 4 years for military service, and for period of return to full-time student status	$50 plus interest per month or amount needed to repay principal and interest in 10 years
GUARANTEED LOANS					
Illinois Guaranteed Loan, United Student Aid Fund Loan, Federally Insured Loan, and other state guaranteed-loan programs Aggregate Maximum varies; usually $7,500 to $10,000	7% per year simple interest on the unpaid principal balance; under certain conditions, the federal government pays the interest for the student while he is in school	None	Varies; usually 9 months after ceasing to be full-time student	Varies; usually up to 3 years for military service, Vista, Peace Corps, and for period of return to full-time student status	Varies; usually $30 per month or amount required to repay principal and interest in 10 years. The Illinois Guaranteed Loan must be repaid on a 5-year repayment schedule

Table 7: National Direct Student Loan Program and U.S. Public Health Service Loan Program

Amount of Loan	*Monthly Repayments 120 Months Maximum*
$ 3,000	$(*)
4,000	35
5,000	45
6,000	50 + 3% per year
7,000	60 simple interest
8,000	70
9,000	75
10,000	85

* $30 per month plus interest minimum repayment required.

Table 8: University of Illinois Long-Term Loan Program

Amount of Loan	*Monthly Repayments 84 Months Maximum*
$2,000	$(*)
3,000	40
4,000	50 + 3% per year
5,000	60 simple interest
6,000	75
7,000	85

* $30 per month plus interest minimum repayment required.

Table 9: Illinois Guaranteed-Loan Program, Federally Insured Loan Program, United Student Aid Fund Loan Program, and Other State Guaranteed-Loan Programs (at 7 percent per year simple interest rate)

Amount of Loan	*Monthly Repayments*	
	60 Months	*120 Months*[1]
$1,000	$ (*)	$(*)
2,000	40	(*)
3,000	60	35
4,000	80	46
5,000	100	60
6,000	120	70
7,000	140	81

[1] This column does not apply to the Illinois Guaranteed-Loan Program.
* $30 per month minimum repayment required.

Specialized Aid Programs

PROGRAMS FOR VETERANS

Illinois State Military Scholarships

An Illinois statute provides a tuition scholarship at any of the state-supported colleges, universities, or Class 1 junior colleges in Illinois for each veteran who served

in World War I if he entered the service between April 6, 1917, and November 11, 1918, and for each veteran who served in the armed forces at any time after September 16, 1940, provided certain eligibility requirements are met.

> *Value:* Waiver of the cost of tuition but not fees for four consecutive calendar years. Undergraduate veterans should first apply for Illinois State Scholarship Commission grants which can pay fees as well as tuition. (See page 79.)

Scope: Any state-supported college, university, or Class 1 junior college in Illinois.
Eligibility: To be eligible, a veteran must have had at least one year of active service and have been honorably discharged (or separated) from such service or have received an honorable discharge for medical reasons directly connected with active service. Before entering active service, he must have been (1) a resident of Illinois, (2) a resident until at least six months before entering active service and returned to Illinois within six months after leaving active service and have resided in Illinois not less than one year immediately prior to the date of application for the scholarship, or (3) a student at one of the state-supported colleges or universities or Class 1 junior colleges in Illinois at the time of entering active service.

Members of the armed forces currently on active duty are also entitled to a State Military Scholarship provided they have served at least two years and would be qualified for the scholarship if discharged.
How to apply: Contact the Office of Student Financial Aids.

Veterans Benefits (GI Bill)

Students seeking information regarding veterans educational benefits should contact the Office of Veterans Affairs, University of Illinois at Urbana-Champaign, 310 Student Services Building, 610 East John Street, Champaign, Illinois 61820.

OTHER SPECIALIZED SCHOLARSHIP AND GRANT PROGRAMS

Avery Brundage Scholarships

Avery Brundage, honorary president of the International Olympic Committee and an alumnus of the University of Illinois, established the fund to recognize and assist University of Illinois students who are both academically gifted and exceptional amateur athletes.
Value: $500 maximum per year.
Scope: Applicable to the Urbana-Champaign, Chicago Circle, and Medical Center campuses for undergraduate, professional, and graduate students.
Eligibility: Selection made by a University committee on the basis of academic and athletic records and recommendations.
How to apply: Obtain applications from the Office of Student Financial Aids.

General Assembly Scholarships

Value: Waiver of resident tuition (but not fees) for varying continuous periods of time, not to exceed four years.
Scope: Each member of the General Assembly of Illinois may award one scholarship each year applicable only to the University of Illinois and one each year applicable to any other state-supported college or university.
Eligibility: Recipient must be a resident of the district represented by the legislator who nominates him.
How to apply: Contact member of the General Assembly of Illinois.

Children of Veterans Scholarships

Three scholarships may be awarded by the University of Illinois in each county: one to a child of a veteran of World War I, one to a child of a veteran of World War

II, and one to a child of a veteran who served at any time during the national emergency between June 25, 1950, and January 31, 1955. *Preference is given to candidates whose fathers are deceased or disabled. A candidate for one of these scholarships must submit evidence of his father's service (honorable discharge certificate or photostat thereof), and an affidavit from the father or mother to establish the fact that the candidate is the child of a veteran, and whether the father is deceased or disabled.*

Value: Waiver of tuition (but not fees) for four years. Applicants with financial need should also apply to the Illinois State Scholarship Commission for awards which can cover fees as well as tuition. (See page 79.)

Scope: May be used in any course at the University of Illinois at any of its three campuses: Urbana-Champaign, Chicago Circle, or Medical Center, Chicago.
Eligibility: Candidate must be a resident of Illinois and of the county where application is made. Applicants who attend a high school in a county different from the county in which they reside should submit their application to the Superintendent of the Educational Service Region in their county of residence. Children of veterans may compete even if they have had college work in the University of Illinois or any other college. There is no special average required for this college work. Weighted scores on the ACT examination are used to determine recipients.
How to apply: Contact the local county Superintendent of Educational Service Region.

Teacher Special Education

Value: Waiver of resident tuition (but not fees) for four calendar years.
Scope: May be used at any Illinois state-supported college or university. Two hundred and fifty scholarships are awarded at large throughout the state.
Eligibility: Candidate must be a recent graduate of an Illinois high school in the upper half of his graduating class or must hold a valid Illinois Teacher's Certificate.
Obligation: Recipients must agree to take courses in preparation for teaching in special education programs.

Persons who accept these scholarships must, after graduation from or termination of enrollment in a teacher education program, teach in any recognized public, private, or parochial school in Illinois for at least two of the five years immediately following that graduation or termination. Any time up to four years spent in the military service and any time a person is enrolled full-time in an academic program leading to a postbaccalaureate degree are excluded from the five-year period. Any person who fails to fulfill the teaching requirement must pay to the superintendent of public instruction the amount of tuition waived by virtue of his acceptance of the scholarship together with interest at 5 percent per year on that amount.
How to apply: Recent high school graduates should contact their high school principal. Holders of an Illinois Teacher's Certificate should write to their local county Superintendent of Educational Service Region indicating the type of certificate held.

State Army ROTC Scholarships

Illinois State Army Reserve Officers' Training Corps Law scholarships are available to students enrolled in Army ROTC. An Illinois state statute provides that residents of Illinois who enroll in Army ROTC at colleges and universities supported by the state of Illinois shall be eligible to compete for these scholarships.
Value: Waiver of cost of resident tuition over a period during which the recipient is enrolled in the Army ROTC Program.
Scope: May be used in any course at any of the state-supported colleges or universities in Illinois which offer Army ROTC.

Eligibility: Candidate must be a resident of Illinois and enroll in the University and in Army ROTC. (1) Students may apply after a minimum of one semester of ROTC. If awarded, scholarships are retroactive to beginning of school year. (2) Students may enter from an Illinois junior college and have completed all possible work at that junior college.
How to apply: Application forms are available at the ROTC unit.
Obligation: Financial need is not a requirement for this scholarship and acceptance does not increase military obligation.

Junior college students transferring to a senior state college or university may be awarded a junior college Army ROTC Scholarship based upon the recommendation from the director of financial aid at the junior college. All students enrolled in, or eligible to be enrolled in, the ROTC program at the state-supported college or university may compete for the award of this scholarship. Selection of students for the award is based upon information contained in the completed application form. (See also the Army, Navy, and Air Force Reserve Officers' Training Corps sections.)

Illinois Department of Children and Family Services

Value: Waiver of resident tuition for four years. In addition, the Illinois Department of Children and Family Services will provide maintenance and school expenses to supplement the student's earnings and other resources.
Scope: Any state-supported college or university in Illinois. Only the maintenance allowance can be furnished if the student attends a non–state-supported institution. A minimum of twelve scholarships is awarded each year.
Eligibility: Students selected must be under the guardianship of the Illinois Department of Children and Family Services.
How to apply: Contact local caseworker or Illinois Department of Children and Family Services, 425 South Second Avenue, Springfield, Illinois 62706.

Division of Vocational Rehabilitation Scholarships

Value: Varies, based on need. Time covered varies according to individual needs and program requirements.
Scope: May be used at any postsecondary school.
Eligibility: Recipient must have a disability that is a handicap to employment.
How to apply: Illinois residents should contact the State of Illinois Division of Vocational Rehabilitation, 623 East Adams Street, Springfield, Illinois 62701. Students from other states should contact their state Division of Vocational Rehabilitation.

Verdell-Frazier-Young Awards

Value: Varies, maximum grant $500.
Scope: Applicable only to the University of Illinois at Urbana-Champaign.
Eligibility: Awards are made to women who have experienced an interruption in their academic careers. Preference is given to women who have had an interruption of at least two years.
How to apply: Contact the Office of Continuing Education for Women, University of Illinois at Urbana-Champaign, 2 Student Services Building, Champaign, Illinois 61820.

Women's Organizations Grants-in-Aid

Each year a number of women students receive grants-in-aid from funds donated by A-Ti-Us; Women's Glee Club; Mortar Board; Shorter Board; Torch; Panhellenic Council; Blaisdell, Saunders, Taft, Wardall, and Evans Halls; Lincoln Avenue and Allen Residences; and Delta Delta Delta Sorority. Application should be made to the Student Personnel Office. Awards are made only to students currently enrolled.

Student Activity Grants-in-Aid

Certain fields of student activity have been approved for grants-in-aid. These fields are baseball, basketball, debate, dramatics, football, music, publications, student leadership, and track and cross-country. Application forms for other than athletic grants-in-aid may be obtained from the Office of Student Financial Aids. Applications for athletic grants-in-aid should be made directly to the Director of Athletics, University of Illinois at Urbana-Champaign, 112 Assembly Hall, Champaign, Illinois 61820.

Fred S. Bailey Scholarships

Value: Varies.
Scope: Applicable only to the University of Illinois at Urbana-Champaign.
Eligibility: Men and women students in any program of study are eligible to apply. Awards are based on financial need, character, and superior scholarship.
How to apply: Contact the University Young Men's Christian Association, 1001 South Wright Street, Champaign, Illinois 61820.

SCHOLARSHIPS AWARDED BY AGENCIES OUTSIDE THE UNIVERSITY

There are many scholarship programs which operate independently of any college or university. The student is usually free to attend the school of his choice.

Each year University of Illinois undergraduates receive approximately $500,000 in awards of this type. Students are urged to contact their high school counselor or college department head to learn of scholarship opportunities for which they are eligible. The following directories list undergraduate scholarships and loans awarded by foundations, fraternal organizations, professional societies, unions, business corporations, and other donors.

Angel, Juvenal L. *How and Where to Get Scholarships and Loans.* 2nd ed. New York: Regents Publishing Company, 1968.

Current Financial Aids for Undergraduate Students. Peoria, Illinois: College Opportunities Unlimited, 1968. (Updated periodically by supplements.)

Illinois Department of Public Instruction. *Financial Aids to Illinois Students.* Springfield: Department of Scholarship Services.

Illinois Junior Chamber of Commerce. *College Opportunities without Money: Scholarships, Loans, Jobs for Illinois High School Graduates.* Educational Opportunities, 1965.

Keeslar, Oreon Pierre. *A National Catalog of Financial Aids for Students Entering College.* 3rd ed. Dubuque, Iowa: W. C. Brown Company, 1967.

Levy, William V. *College Scholarships and Loans: Who Gets Them, How, and Why.* New York: MacFadden-Bartell, 1964. Pp. 35-60, 91-95.

Turner, David Reuben. *College Scholarships: A Complete Guide to Scholarship Aid from All Sources.* New York: Arco, 1966.

U.S. Library of Congress. *Student Assistance Handbook: Guide to Financial Assistance beyond High School.* Washington: U.S. Government Printing Office, 1965. Pp. 154-71.

Short-Term and Intermediate Loans

In emergencies, full-time University of Illinois at Urbana-Champaign students may borrow up to $100 for up to sixty days or until the last day of instruction for the semester, whichever comes first. However, in order to make more money available to a maximum number of students, applicants should keep the purpose of the loan in mind (short-term emergency) and are encouraged to borrow as little as necessary for as short a period of time as necessary. A service fee of $1 is charged for short-term loans. There is a 6 percent interest charge on overdue loans.

Domestic students should apply in person to the Student Services Office, 130 Student Services Building. Foreign students should apply to the Foreign Student-Staff Affairs Office, 310 Student Services Building. These funds which are made available immediately must be used for educational expenses.

A special provision permits graduating seniors and graduate students to borrow up to $250 to meet expenses incurred as a result of employment interviews. Applicants for this type of short-term loan must show evidence that the prospective employer will reimburse the applicant for expenses incurred.

Intermediate loans in amounts not to exceed $200 may be made, if funds are available, to help meet special financial needs of students who can demonstrate evidence of interrupted cash flow during an academic year and who can also demonstrate evidence of means of complete repayment during the semester or academic year. A service charge of $5 will be assessed. There is a 6 percent interest charge on overdue loans. The application procedure for intermediate loans is the same as for short-term loans.

Listed in Appendix C on page 403 are the funds which have been established for short-term and intermediate loans with the names of the donors whose generosity has made possible this type of aid.

GRADUATION REQUIREMENTS

Bachelor's Degree

Each candidate for a bachelor's degree must meet the general requirements of the University with respect to registration, residence, general education, and rhetoric; must meet the minimum scholarship requirements which the University has approved for his or her college or division; and must pass the subjects which are prescribed in his or her curriculum and conform to the requirements of that curriculum in regard to electives and the total number of hours required for graduation (listed below).[49]

UNDERGRADUATE COLLEGES	HOURS
College of Agriculture	
Maximum advanced military accepted: no maximum	
Bachelor of Science (B.S.) in	
Agriculture	126
Food Industry	130
Food Science	130
Forestry	126
Home Economics	120
Home Economics Education	126
Interior Design	120
Ornamental Horticulture	130
Restaurant Management	126
College of Commerce and Business Administration	
Maximum advanced military accepted: no maximum	
Bachelor of Science (B.S.) in	
Accountancy	124
Business Administration	124
Economics	124
Finance	124

[49] Excluding basic military, unless otherwise indicated.

College of Communications

Maximum advanced military accepted: no maximum

Bachelor of Science (B.S.) in
- Advertising 124
- Journalism 124
- Radio and Television 124

College of Education

Maximum advanced military accepted: no maximum

Bachelor of Science (B.S.) in
- Business Education 126
- Early Childhood Education 124
- Education of the Deaf 124
- Education of Mentally Handicapped Children 124
- Elementary Education 124
- Occupational and Practical Arts Education 128
- Secondary Education 120

College of Engineering

Maximum advanced military accepted: 0 to 6 hours (depending on curriculum)

Bachelor of Science (B.S.) in
- Aeronautical and Astronautical Engineering 134
- Agricultural Engineering 128
- Ceramic Engineering 132
- Civil Engineering 129
- Computer Engineering 124
- Computer Science 122
- Electrical Engineering 124
- Engineering Mechanics 128
- Engineering Physics 128
- General Engineering 127
- Industrial Engineering 130
- Mechanical Engineering 130
- Metallurgical Engineering 128
- Teaching of Engineering Technology 136

College of Fine and Applied Arts

Maximum advanced military accepted: 6 hours

Bachelor of Arts (A.B.) in
- Teaching of Dance 130

Bachelor of Fine Arts (B.F.A.) in
- Art Education 130
- Crafts 122
- Dance 130
- Graphic Design 122
- History of Art 122
- Industrial Design 122
- Painting 122
- Sculpture 122
- Theatre 128

Bachelor of Landscape Architecture (B.L.A.) 132

Bachelor of Music (B.Mus.) 130

Bachelor of Science (B.S.) in
- Architectural Studies 124
- Music Education 130

Bachelor of Urban Planning (B.U.P.) 124

College of Liberal Arts and Sciences

Maximum advanced military accepted: No credit except for courses cross-listed with an academic department of a college of the University for students who have matriculated after September 1, 1972.

Bachelor of Arts (A.B.) in
- Liberal Arts and Sciences 120
- Speech and Hearing Science 124
- Teaching of English 128
- Teaching of French 120
- Teaching of German 120
- Teaching of Latin 120
- Teaching of Russian 123
- Teaching of Social Studies 120
- Teaching of Spanish 123
- Teaching of Speech 128

Bachelor of Science (B.S.) in
- Chemical Engineering 129
- Chemistry 130
- Geology 130
- Home Economics 120
- Liberal Arts and Sciences 120
- Physics 126
- Speech and Hearing Science 128
- Teaching of Biology 120
- Teaching of Chemistry 125
- Teaching of Earth Science 125
- Teaching of Geography 123
- Teaching of Mathematics 120
- Teaching of Physics 126

College of Physical Education

Maximum advanced military accepted: no maximum

Bachelor of Science (B.S.) in
- Health and Safety Education ..... 130[50]
- Physical Education ..... 128[50]
- Recreation and Park Administration ..... 132[50]

Jane Addams School of Social Work

Maximum advanced military accepted: no maximum
- Bachelor of Social Work 120

PROFESSIONAL COLLEGES

College of Law

Graduate-Professional

Maximum advanced military accepted: 0 hours
- Juris Doctor (J.D.) ..... 90[51]

Graduate[52]

Maximum advanced military accepted: 0 hours
- Master of Laws (LL.M.)
- Master of Comparative Law (M.C.L.)
- Doctor of the Science of Law (J.S.D.)

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[50] Including basic military.

[51] In law courses only, beyond the preprofessional study.

[52] Consult the *Graduate Programs* catalog for complete information concerning graduate degrees.

College of Veterinary Medicine

Undergraduate

Maximum advanced military accepted: 0 hours

Bachelor of Science (B.S.) in Veterinary Medicine ..... 75[53]

Graduate-Professional

Maximum advanced military accepted: 0 hours

Doctor of Veterinary Medicine (D.V.M.) ..... 78[54]

Graduate[55]

Maximum advanced military accepted: 0 hours

Master of Science (M.S.) in Veterinary Medical Science

Doctor of Philosophy (Ph.D.) in Veterinary Medical Science

Certificates

Certificates of Completion are conferred at Urbana-Champaign upon completion of certain specialized curricula. Each candidate for a certificate must meet the general requirements of the University with respect to registration; must satisfy the minimum scholarship requirements which the University has approved for his curriculum; must complete all special requirements established for his curriculum; and must pass in the subjects which are prescribed in his curriculum and conform to the requirement of that curriculum in regard to electives and the total number of hours required for graduation (listed below).[56]

UNDERGRADUATE

Institute of Aviation

Maximum advanced military accepted: 0 hours

Certificate of Completion of

Curriculum in Aircraft Maintenance 72

Curriculum in Aviation Electronics 55

Curriculum for the Professional Pilot 66

Combined Flight-Maintenance Program 84

POSTBACCALAUREATE

College of Engineering

Certificate in Teaching of Engineering Technology ..... 32[57]

Subject Requirements

GENERAL EDUCATION

A minimum of 6 hours each in the humanities, the social sciences, and the natural sciences is required for graduation in all undergraduate curricula. Approved courses should be distributed over at least three years. Upon request the individual colleges will provide the student with the general education requirements for his curriculum and the list of courses acceptable for this purpose.

ENGLISH

Satisfactory proficiency in the use of English is a requirement for all undergraduate degrees awarded at the Urbana-Champaign campus of the University. In order to assure such proficiency, each undergraduate student must earn credit in a one-

[53] In veterinary medicine courses only, beyond the preprofessional study.

[54] Beyond the B.S. in Veterinary Medicine.

[55] Consult the *Graduate Programs* catalog for graduate degree information.

[56] Excluding basic military, unless otherwise indicated.

[57] In four summers beyond the baccalaureate degree.

semester, 4-hour course of either Rhet. 105 or 108. By selecting Sp. Com. 111 and 112, students may satisfy both the English and Sp. Com. 101 requirement for a particular college. Credit earned in Rhet. 101 or Sp. Com. 111 or other equivalent courses prior to September 1972 satisfies the English requirement.

Students may satisfy the English requirement for graduation through successful performance on the Rhetoric Placement and Proficiency Examination. This examination is offered to all new students at various times in the spring and summer during the period of the precollege programs and during New Student Week just prior to opening of the fall and spring semesters. By arrangement with the Department of English other students also may take this examination.

English Requirement for Domestic Transfer Students

Persons who enter the Urbana-Champaign campus of the University from another collegiate institution with less than 3 semester hours of credit in freshman rhetoric or composition must earn credit in either Rhet. 105 or 108. If the academic credentials of a transfer student do not conclusively indicate fulfillment of the rhetoric requirement at another collegiate institution, he may be administered the Rhetoric Placement and Proficiency Examination.

English Requirements for Non-native English Speakers

Foreign students whose native language is English follow the English programs for American English-speaking students which have been described under "English" above. Foreign students whose native language is not English take comparable courses offered by the Division of English as a Second Language. American students whose native language is not English and immigrant students who have permanent visas may follow either the English program designed for native English speakers or that designed for foreign students whose native language is not English.

The Office of Admissions and Records is authorized to determine which students shall be classified as *foreign* according to the following definition: A person who is a citizen or permanent resident of a country or political area other than the United States and has a residence outside the United States to which he expects to return and either is, or proposes to be, a temporary alien in the United States for educational purposes is classified as a foreign student.

The English requirement for graduation for all undergraduate students classified as foreign according to the above definition who do not have a degree from a college or university where the native language is English and where all instruction was in English, is determined on the basis of admission and placement tests. These tests include the following:

- The Test of English as a Foreign Language (TOEFL), administered by the Educational Testing Service, Princeton, New Jersey. A satisfactory score on this test must be received by the University before the student may receive a Permit to Enter the University. In cases where TOEFL testing dates are not available prior to the desired term of entry, the test given by the English Language Institute, Testing and Certification Division, Ann Arbor, Michigan, may be substituted.
- A combination oral and written proficiency and placement test given to those foreign students whose performance on the English entrance test satisfied admission requirements but indicated further study of English necessary for successful college study. The results of this test determine whether the student is to be exempt from one or both of the courses usually required of foreign students (E.S.L. 114 and 115), or whether he or she must be assigned to one or more of the noncredit remedial courses which precede registration in the required credit courses.

Any American student for whom English is not his native language or any immigrant student with a permanent visa who desires to satisfy the English requirement through the courses offered by the Division of English as a Second Language must take the same combination written and oral placement and proficiency exami-

nation given to foreign students. If the student's scores are higher than those of the foreign student normally assigned to E.S.L. 115, he or she must take the Rhetoric Placement and Proficiency Examination offered by the Department of English for native English-speaking countries.

A passing grade in E.S.L. 114 and 115, or the equivalent, satisfies the graduation requirement for foreign students and for any American or immigrant student following this program. Those students whose deficiency in the command of English is such that they are placed in the noncredit courses, E.S.L. 109, 110, or 111, are not allowed to register for a full academic program in other fields and must complete prerequisite courses before entering the E.S.L. 114/115 sequence. Bilingual foreign students who speak English and who prefer to take Rhet. 105 or 108 are permitted to enroll in those courses if their achievement on the placement test indicates they are capable of doing the work.

Transfer students from abroad whose native language is not English and who enter with fewer than 4 semester hours of credit in freshman rhetoric must take the placement test for foreign students. Their accomplishment on the placement test determines what additional English they are required to take.

FOREIGN LANGUAGE

Except as prohibited or limited by the established policy of the student's college, credit in University foreign language courses taken to remove high school entrance deficiencies may, at the discretion of the college, be counted in the total hours required for graduation and be accepted in partial or complete satisfaction of the foreign language requirement for the degree.

PHYSICAL EDUCATION

Credit in physical education courses is not a general requirement for a degree at the Urbana-Champaign campus of the University, but may be required in some curricula. Credit earned in physical education courses may, at the discretion of the individual college, be included in the scholastic average of the student and in the total hours required for graduation.

Minimum Scholarship Requirements for the Bachelor's Degree

All candidates for a degree must have at least a 3.0 (A=5.0) grade-point average on all University of Illinois at Urbana-Champaign credits counted for graduation requirements and at least a 3.0 grade-point average on the combined transfer and University of Illinois at Urbana-Champaign credits counted for graduation requirements. Certain colleges have established higher scholastic graduation requirements for specific curricula. (Grades in courses taken at the other campuses of the University are counted as transferred.)

Where a course has been repeated, both the original and subsequent grades are included in the average if the course is acceptable toward graduation, but the credit is counted only once. An original failing grade is not removed from the student's record for a course subsequently passed by special examination.

A student at the Urbana-Champaign campus who does not meet the requirements stated above may graduate if he has the minimum grade-point average calculated by either of the following alternate methods:

- Exclude courses in which grades of D or E have been recorded not to exceed a total of 10 semester hours completed prior to the last 30 hours of work completed at the University of Illinois at Urbana-Champaign and counted for graduation requirements, *or*
- A grade-point average of no less than 3.1 for the last 60 semester hours of work counted for graduation requirements and completed at the University of Illinois at Urbana-Champaign, except in those curricula where a higher scholastic graduation requirement is specified.

Residence Requirement

In addition to specific courses and scholastic average requirements, each candidate for a bachelor's degree from the University of Illinois at Urbana-Champaign must spend either the first three years, earning not less than 90 semester hours, or the last year (two semesters, or the equivalent), earning not less than 30 semester hours, in residence at the Urbana-Champaign campus, uninterrupted by any work in another institution. Only those courses which are applicable toward the degree sought may be counted in satisfying the above minimum requirements. (Either three twelve-week terms or four eight-week sessions are the equivalent of two semesters.)

Concurrrent attendance at the University of Illinois and another collegiate institution does not interrupt University of Illinois at Urbana-Champaign residence requirement for graduation.

Credit earned through the Advanced Placement Program is included in the first 90 semester hours and is not considered as interrupting residence.

Credit allowed toward graduation for completion of courses of study offered by the religious foundations located in Urbana-Champaign are not counted as interrupting residence or counted toward satisfying minimum residence requirements for graduation.

Attendance at another institution under the CIC Program or participation in the University of Illinois foreign study programs or the Study away from Campus Programs for which students are registered in Urbana-Champaign courses does not interrupt residence, and credits earned through these programs are counted as residence credit toward graduation, provided that within the last two years of study at least 30 semester hours have been earned in courses taken on the Urbana-Champaign campus.

Transfers from junior colleges must, after attaining junior standing, earn at the University of Illinois at Urbana-Champaign or any other approved four-year institution at least 60 semester hours acceptable toward their degree, in addition to meeting the usual residence requirement for a degree from the University of Illinois at Urbana-Champaign. (See page 35.)

Students transferring from the Chicago Circle campus to Urbana-Champaign as candidates for degrees must satisfy the residence and academic requirements for graduation established for the curriculum at the Urbana-Champaign campus. Since the two campuses do not have identical academic programs, the student who is contemplating a transfer should consult with the college to which he expects to transfer.

A student attending as a visitor only is not considered a student in residence.

A student who requests that the residence requirement for graduation be waived must submit a petition to the dean of his college, who will take action on the petition.

A person who wishes to obtain a degree in a given semester but is not eligible to take courses that semester on the Urbana-Champaign campus without applying for readmission must apply to the director of admissions and records for readmission to the campus for the purpose of obtaining a degree. Students who are on drop status may not graduate until they have been readmitted to their college.

Second Bachelor's Degree

A student who has received one bachelor's degree may be permitted to receive a second bachelor's degree from the University of Illinois at Urbana-Champaign provided all specified requirements for both degrees are fully met and provided also that the curriculum offered for the second degree includes at least the final 30 semester hours which are earned in residence at the Urbana-Champaign campus and not counted for the other degree.

The second bachelor's degree may be earned either concurrently with or subsequent to the first degree.

Candidates for a second bachelor's degree from the University of Illinois at

Urbana-Champaign must meet the same residence requirements as for the first degree. If any of the first three years of credit has been transferred from another institution, the student must spend the last year (two semesters, or the equivalent) earning a minimum of 30 semester hours in uninterrupted residence at the Urbana-Champaign campus.

Only those courses which are acceptable toward the degree sought may be counted in satisfying the above minimum requirements. This includes the 30 additional hours required for the second degree.

ACADEMIC AND OTHER REGULATIONS

During registration each student is offered a copy of the *Code on Campus Affairs and Regulations Applying to All Students* which contains academic, conduct, and other regulations governing students at the Urbana-Champaign campus. Appearing below are condensations or brief explanations of some of these regulations. Each student should familiarize himself with the complete regulations and contact the office of the dean of his college for additional regulations applying only in his college.

Grading System

Faculty members have the responsibility to provide the University with an individual evaluation of the work of each student in their classes. Final course grades are entered on the student's permanent University record at the close of each semester, term, or session. The University of Illinois at Urbana-Champaign grading system is as follows:

COURSES IN ALL COLLEGES EXCEPT THE COLLEGE OF LAW

A = excellent; B = good; C = fair; D = poor (lowest passing grade); E = failure, including courses dropped for academic irregularities; Ab = absent from the final examination without an excuse acceptable to the dean of the college concerned (counts as a failure). Plus and minus signs are not authorized with these grades.

Courses in the College of Law

In addition to the above grades, instructors in the College of Law are authorized to assign grades of B+ and C+.

COMPUTATION OF SCHOLASTIC AVERAGES

For numerical computation of scholastic averages, the following values are designated: A = 5.0; B+ = 4.5; B = 4.0; C+ = 3.5; C = 3.0; D = 2.0; E and Ab = 1.0.

Uniform Method for Calculation

A uniform method for calculating undergraduate grade-point averages has been established for all undergraduate colleges at the Urbana-Champaign campus. These averages are calculated on the basis of all courses attempted for which grades and credits are assigned and which carry credit in accordance with the *Courses Catalog*. Since courses offered by the religious foundations on or near the Urbana-Champaign campus are not official University courses and are not included in the *Courses Catalog,* the grades earned in such courses will not be included in the calculation of any grade-point averages. Grades of S, U, CR, NC, and Pass are reported on the official University transcript but are not included in the grade-point averages since grade-points are not assigned to these letter grades. This method of calculation is used to determine honors, probation and drop status, financial aid and scholastic awards, and transfer between colleges on this campus.

For the purpose of computing a grade-point average for graduation, only the grades received in those courses counting toward the degree, including grades in repeated courses, are included in the average. (See Minimum Scholarship Requirements for a Bachelor's Degree on page 95.)

For the special method used to determine eligibility for transfer into the University, refer to Admission Requirements on page 32.

OTHER SYMBOLS IN USE (not included in computation of averages)

W — Officially withdrawn from the course without penalty (withdrawal notice received from the Administrative Data Processing Unit).

Ex — Temporarily excused. Approved extension of time to complete the final examination or other requirements of the course. Applies to *both* undergraduate and graduate students. Entitles the student to an examination later without fee, or additional time to complete other requirements of the course.

Undergraduate Students: Only the dean of his college may authorize such an extension of time in individual cases. A grade of Ex which is not removed by the end of the first eight weeks of instruction in the semester following the receiving of the excused grade, if the student is enrolled in an undergraduate college at the Urbana-Champaign campus of the University in that semester, automatically becomes a grade of E. If the student receiving an excused grade does not reenroll at the Urbana-Champaign campus the excused grade, if not removed, becomes an E after one calendar year.

Graduate Students: Graduate students who are unable to take the final examination at the scheduled time or to complete other requirements of a course must make individual arrangements with their instructors.

An excused grade for graduate students must be replaced by a letter grade no later than the end of the next semester in which the student is registered. If the student does not enroll the following term the excused grade becomes an E after one calendar year.

CR — Credit earned. To be used only in courses taken under the credit/no credit grading option. (Instructors report the usual letter grades. Grades of A, B, and C will automatically be converted to CR.)

NC — No credit earned. To be used only in courses taken under the credit/no credit grading option. (Instructors report the usual letter grades. Grades of D, E, or Ab will automatically be converted to NC.)

Df — Grade temporarily deferred. To be used only in those thesis, research, and special problems courses extending over more than one semester which are taken by graduate students as preparation for the thesis and by undergraduate students in satisfaction of the requirements for graduation with honors, and in other *approved courses which extend over more than one semester.*

Requests for use of the Df grade in other courses which extend over more than one semester, and which therefore require postponement of the final grade report, must be submitted in writing by the executive officer of the department offering the course to the director of admissions and records prior to the beginning of the final examination period for which the approval would first apply. A current list of courses which have received such approval is maintained in the Office of Admissions and Records.

S — Satisfactory, and

U — Unsatisfactory. To be used only as final grades in graduate thesis research courses, in graduate and undergraduate courses given for zero credit, and in other courses which have been specifically approved by the head or the chairman of the department concerned, with concurrence of his dean. A current list of courses which have received such approval is maintained in the Office of Admissions and Records.

O — Outstanding. To be used only as a final grade in the Med. S. 300 course.

Pass — To be used only in courses passed by special or proficiency examinations. A minimum grade of C is required to pass.

Fail — To be used only in courses attempted but not passed by special examinations. Failures in proficiency examinations are not reported.

Credit–No Credit Grading Option

A full-time undergraduate student in good academic standing (not on probation) may, with the approval of his adviser, take a maximum of two courses each semester under the credit–no credit grading option. Part-time students may take one course each semester under this option. Summer session students may take one course under the credit–no credit option.

A maximum of 18 semester hours earned under the credit–no credit grading option may be applied toward a baccalaureate degree at the Urbana-Champaign campus of the University. A correspondence course taken on a credit–no credit basis will be included in the 18 semester hour maximum credit–no credit limit allowed.

Any lower or upper division course may be chosen under the credit–no credit option except courses used to satisfy the University's general education requirements, or in courses designated by name or area by the major department for satisfying the major or field of concentration, or those specifically required by name by the college for graduation. In cases of subsequent change of major or field of concentration, courses previously taken under the credit–no credit option in the new field may qualify for meeting major requirements.

An undergraduate student must exercise the credit–no credit option for a course taken in residence only during registration or within the first two weeks of instruction in the semester (only during registration or within the first week of instruction during the summer session); however, he or she may elect to return to the regular grade option by filing an amended request within the first eight weeks of the semester (first four weeks of instruction during the summer session). The credit–no credit option form must be properly approved and deposited in the college office.

A grade of C or better is required to earn credit. Final grades of CR or NC (for credit or no credit) are recorded on the student's permanent academic record and subsequently will not be changed to letter grades.

Religious Foundation Courses

A maximum of 10 semester hours of credit in religious education may, with the approval of the dean of the college concerned, be counted toward graduation.

Courses of study offered by the religious foundations located in Urbana-Champaign which have been approved by the College of Liberal Arts and Sciences Committee on Courses and Curricula are accepted for credit by the University *provided the student is currently registered in University courses.* Registration in these courses is limited to registered students of sophomore standing or above and must be approved in advance by the dean of the student's college. Grades in these courses are not included in the student's all-University scholastic average, and the courses are not counted as interrupting residence or toward satisfying minimum residence requirements for graduation.

Correspondence and Extramural Courses

After matriculation a student may count toward his degree, with the approval of the dean of his college, as many as 60 semester hours of credit earned in extramural and/or correspondence study, provided:

– He completes all the remaining requirements for the degree in residence at the University, *or*

– He presents acceptable residence credit for work done elsewhere and completes the requirements needed for his degree in residence at the University. In all such cases, the senior year (two semesters of not less than 30 semester hours) must be done in residence at the University.

Undergraduate Credit for Service and for Education in the Armed Forces

The University, under general provisions administered by the University Committee on Admissions, recognizes for college credit certain training and experience in the armed forces of the United States. The completion of military service in the U.S. Air Force, Army, Marine Corps, or Navy, including basic or recruit training of six months or more, is accepted for credit in four semesters of basic military and for 4 semester hours of credit in physical education upon presentation of evidence of honorable discharge or transfer to the reserve component. Candidates for graduation who are still in military service are entitled to the same credit. Additional credit in military may be granted for courses completed in the service which are acceptable as the equivalent for the advanced ROTC at the University of Illinois.

The committee recognizes for credit correspondence courses of college grade and the examinations in special fields prepared by the United States Armed Forces Institute and the Marine Corps Institute. The College Training Programs of the Air Force, Army, Marine Corps, and Navy, which functioned during World War II, are accepted as credit when transferred from the institution where they were taken. The committee considers for credit work done in the Air Force, Army, Coast Guard, Marine Corps, and Navy specialized and technical schools where its equivalence in terms of college courses is established by proficiency examinations or where such courses have been recommended for college credit in the *Guide to the Evaluation of Educational Experience in the Armed Services* published by the American Council on Education. Additional information may be obtained from the Office of Admissions and Records, 177 Administration Building. (See also General Educational Development Tests on page 28.)

Thesis

If a thesis is to be submitted in partial fulfillment of the requirements for a bachelor's degree, the subject must be announced by the end of the sixth week of instruction in the first semester of the student's senior year. The work must be done under the direction of a professor in the department concerned and must be applicable to the curriculum in which a degree is expected. A maximum of 10 hours of credit in thesis work may be counted toward a bachelor's degree.

Residence Classification

The residence classification of an applicant for admission is determined on the basis of the information given on his or her application for admission and other credentials. Eligibility for admission to the University is determined and tuition is assessed in accordance with this decision.

A student who takes exception to the residency status assigned and/or tuition assessed shall pay the tuition assessed but may file a claim in writing to the director of admissions and records for a reconsideration of residency status and/or adjustment of the tuition assessed.

The regulations governing residence classification and the procedure for review of residency status and/or tuition assessment are available from the Office of Admissions and Records, 177 Administration Building, and are available to each student during registration.

Classification of Students

Classification of undergraduate students is made at the end of each semester and is based on the number of credits earned, including physical education and military. Classification for registration purposes is based on the following scale:

Freshman standing ..... 0–29 hours
Sophomore standing ..... 30–59 hours
Junior standing ..... 60–89 hours
Senior standing ..... 90 or more hours

Admission or Readmission Denied Because of Misconduct

The University reserves the right to deny admission or readmission to any person because of previous misconduct which may substantially affect the interest of the University, or to admit or readmit such a person on an appropriate disciplinary status. The admission or readmision of such a person will not be approved or denied until his case has been heard by the appropriate disciplinary committee. (This applies to a person not now enrolled in the University who might apply for admission or readmission, or to a person who has preenrolled whether or not he has paid his deposit.) A favorable action of the appropriate disciplinary committee does not abrogate the right of any dean or director to deny admission or readmission on the basis of scholarship.

Automobiles, Motorcycles, Motor Scooters, Motor-driven Bicycles, and Bicycles

Students at the Urbana-Champaign campus may possess, operate, park, and store automobiles, motorcycles, motor scooters, and motor-driven bicycles on campus if they have a valid motor vehicle operator's license which legally allows them to operate such vehicles in the state of Illinois and if they comply with the campus vehicle registration and operation regulations. By state of Illinois law, foreign state residents under the age of eighteen years are prohibited from operating a motor vehicle in Illinois. Registration fees are listed under Special Fees on page 74.

All bicycles which are operated, parked, or stored on campus are required to be registered. There is no fee for such registration.

Inquiries concerning motor vehicles and bicycles should be directed to the Division of Parking and Transportation, University of Illinois at Urbana-Champaign, 601 East John Street, Champaign, Illinois 61820.

ACADEMIC HONORS

Recognition for superior academic achievement at the University of Illinois at Urbana-Champaign is given both by the University and by the colleges and departments.

Graduation with Honors

Each college, with the approval of the Urbana-Champaign Faculty Senate and the Board of Trustees, prescribes the conditions under which candidates for its degrees may be recommended for graduation with honors. Detailed information concerning the requirements for graduation with honors is included in the sections of this catalog applying to the individual colleges and departments. These distinctions are noted on the student's baccalaureate diploma, on his permanent University record, and on official transcripts of his credits.

UNIVERSITY HONORS: THE BRONZE TABLET

Continuous academic achievement is recognized by inscribing the student's name on the Bronze Tablet which hangs on a wall of the Library. To be eligible, an undergraduate student must:

- Have at least a 4.5 (A=5.0) cumulative grade-point average for all work taken at the University through the semester prior to his graduation, and
- Rank, on the basis of his cumulative average, through the semester prior to his graduation, in the top 3 percent of the students in his college who will graduate when he does.

If the student is a transfer, he must:

- Have earned 40 or more semester hours at the University of Illinois prior to the semester of his graduation.
- Have a University of Illinois cumulative average *and* a total cumulative average as high as the lowest one listed for eligible students in his college who have completed all of their work at the University of Illinois.

A review of the criteria for Bronze Tablet recognition is now taking place under the direction of the Campus Honors Council, and some change in requirements may occur prior to the next edition of this publication.

THE DEAN'S LIST

The name of every eligible undergraduate student who has achieved a grade-point average for a given semester which ranks the student in the top 20 percent of his or her class is placed on a list prepared for the dean of his college. This list is publicized within the University and is distributed to news agencies throughout the state.

To be eligible for Dean's List recognition a student must complete successfully 14 academic hours, excluding credits earned through proficiency examinations and credits earned through Advanced Placement Tests. Course work taken on a credit/no credit or S/U basis will be counted toward the 14 hours required only if a passing grade is received. Courses for which grades are officially excused or deferred may be included in the 14 minimum hours. Different eligibility requirements are used in the College of Liberal Arts and Sciences. They can be found in the *LAS Student Handbook*.

A review of the criteria for Dean's List recognition is now taking place under the auspices of the various colleges and the Campus Honors Council, and some change in requirements may occur prior to the next edition of this publication.

EDMUND J. JAMES SCHOLARS

Successful performance for one year as an Edmund J. James Scholar is recognized by the University Honors Council, Urbana-Champaign. This recognition is recorded on the student's University record as Edmund J. James Scholar (year). This program is described on page 55.

Prizes and Awards

Competitive prizes, fellowships, and miscellaneous awards available to students in the University are listed below; those which are offered only to students in a particular college, curriculum, or department are described in the sections of this catalog applying to the individual colleges and the Reserve Officers' Training Corps (ROTC).

Alpha Lambda Delta Prize. The national organization of Alpha Lambda Delta, honor society for freshman women, gives a book each year to the Alpha Lambda Delta senior woman who achieves the highest scholastic average for seven semesters at the University of Illinois. Certificates of award may be given to the senior women maintaining the Alpha Lambda Delta average for seven semesters.

National Alpha Lambda Delta annually awards eight $2,000 fellowships for graduate study to recent Alpha Lambda Delta graduates. Additional information is available from the Office of Campus Programs and Services.

H. R. Brahana Prize. A fund has been established in the University of Illinois Foundation in acknowledgment of the contributions to the University and to the Department of Mathematics by H. R. Brahana, professor of mathematics, emeritus. Income from the fund is used each October to award a prize of $100 to an undergraduate within one year of a bachelor's degree in recognition of outstanding performance in mathematics. The recipient is selected by the Department of Mathematics.

Bryan Prize. In 1898, William Jennings Bryan gave to the University the sum of $250 whose income provides a $50 prize for the best essay written by an undergraduate student on a topic relating to the science of government. The prize, which was last awarded in 1972, is ordinarily offered every fifth year. Interested students should consult the Department of Political Science for additional information.

Thomas Arkle Clark Prize. The freshman honor society, Phi Eta Sigma, gives a prize of $25 to its sophomore member who has attained the highest scholastic average for his first three semesters in the University. In case two members have the same average, other factors such as extracurricular activities and outside work are considered.

Thacher Howland Guild Memorial Prize. The Department of English offers a prize of $25 for the best play of the year written by an undergraduate student. The award may be withheld in any year if no production is found worthy of a prize.

George Huff Certificates of Award. The University of Illinois Alumni Association annually presents framed certificates of award for proficiency in scholarship and athletics to students who earn a varsity letter in any sport and who receive a scholastic grade-point average of at least 4.0 (A=5.0) for two consecutive semesters. The awards are presented at the final home basketball game.

Illini Mothers Association Book Award. In recognition of outstanding academic achievement the association presents a book or books to the high school library of each first semester freshman who completes a minimum of 14 semester hours and achieves a 5.0 semester grade-point average.

Illini Poetry Prize. The Department of English offers a prize of $25 for an award-winning poem or group of poems written by an undergraduate student. The award may be withheld in any year if no production is found worthy of a prize.

Intercollegiate Conference Medal. The Intercollegiate Conference, through its faculty representative at each conference institution, awards annually a medal to the student in the graduating class who has attained the greatest proficiency in athletics and in scholastic work.

Phi Kappa Phi Awards. The local chapter of Phi Kappa Phi, national all-university scholastic honor society, gives two annual awards of $200, one to a junior and one to a senior member of the local chapter. The students are selected on the basis of ability, character, and need. Applications should be addressed to the local secretary of the society early in the second semester.

Phi Kappa Phi (Sparks Memorial) Fellowships. Four fellowships of $2,500 each, for graduate study in any American institution of recognized standing, are awarded annually by Phi Kappa Phi, national all-university scholastic honor society, in competitions open to members of the society in any American college or university where a chapter of the society exists. Prospective candidates should file their applications with the local secretary of the society early in the second semester of their senior year.

Leah Fullenwider Trelease Memorial Award. Three prizes are awarded for the best short stories submitted to the Department of English by undergraduate students. Funds are derived from gifts of friends of the late Leah Fullenwider Trelease.

Reserve Officers' Training Corps

ARMY ROTC

Military training has been given at the Urbana-Champaign campus since the University opened in 1868. Originally mandatory for all male undergraduates under the land-grant charter, the program became entirely voluntary in 1964 when Congress passed the ROTC Vitalization Act.

Although military science courses are open to all regularly enrolled students of the University of Illinois, those individuals desiring a commission in the Army of the United States must complete the entire program outlined below. This program is equal to a minor in military science. The student's major must be in any other field of study recognized by the University and for which a degree is granted.

The Department of Military Science offers undergraduate and graduate students an opportunity to earn a regular or reserve commission as a second lieutenant in the U.S. Army by completing a four- or two-year program of study and training. Financial assistance scholarships are available to qualified students.

Normal Four-Year Program

Students enrolling in the basic course must:
- Be regularly enrolled on a full-time basis.
- Be citizens of the United States at least seventeen years of age.
- Be able to complete both the basic and advanced program requirements and receive a baccalaureate degree prior to reaching twenty-eight years of age.
- Be physically fit and of good moral character.
- Be selected by the professor of military science and the University.

Students enrolling in the advanced course must:
- Have completed the basic course requirements through on-campus instruction. (This requirement can be waived for those presenting evidence of equivalent instruction through the basic summer camp, high school instruction, or prior military service.)
- Sign a contract to serve for the prescribed period.
- Agree in writing to accept an appointment, if offered, as a commissioned officer.
- Plan on at least two more academic years of study at the Urbana-Champaign campus of the University.
- Be selected by the professor of military science and the University.

The basic course fulfills the necessary requirements for admission to the advanced program of study and consists of the following required courses normally taken during the freshman and sophomore years:

FIRST YEAR	FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Mil. S. 100 — Leadership Laboratory		0	Mil. S. 102 — Map and Aerial Photo Analysis	1
Mil. S. 101 — Introduction to Military Science (U.S. Defense Establishment)		1	Mil. S. 103 — Basic Tactics	1
Nonmilitary elective[1]		3	Mil. S. 125 — Leadership Laboratory	0
SECOND YEAR				
Mil. S. 112 — American Military History		2	Mil. S. 203 — Principles of Military Leadership	1
Mil. S. 150 — Leadership Laboratory		0	Mil. S. 175 — Leadership Laboratory	0

The advanced course is a two-year course of instruction and includes an advance camp of six-weeks duration. Normally this summer training is taken between the junior and senior year. Successful completion of the advanced course leads to a commission as a second lieutenant in the U.S. Army. It consists of the following required courses normally taken during the junior and senior years:

THIRD YEAR

Mil. S. 200 — Leadership Laboratory 0
Mil. S. 201 — Principles of Military Instruction 1
Mil. S. 210 — Military Law 1
Nonmilitary elective[1] 3
Mil. S. 202 — Introductory Military Operations (Fundamentals and Dynamics of the Military Team).....3
Mil. S. 225 — Leadership Laboratory 0

FOURTH YEAR

Mil. S. 211 — Proseminar 2
Mil. S. 250 — Leadership Laboratory 0
Nonmilitary elective[1] 3
Mil. S. 288 — The Military and Society....3
Mil. S. 275 — Leadership Laboratory 0

[1] A nonmilitary elective approved by the Department of Military Science and the student's college is required during the first, third, and fourth years. Military courses are offered only during semesters as shown above.

BENEFITS FOR ADVANCED COURSE CADETS

Advanced course cadets are eligible for the following benefits:
- Commission in either the Regular Army or in the United States Army Reserve.
- Subsistence pay at the rate of $100 per month during the junior and senior years (10 months out of a year), and pay during summer camp at the same rate as cadets at the United States Military Academy, plus a travel allowance for the summer camp. When the cadet is called to active duty, a uniform allowance of $300 is authorized.
- An officer-type uniform is furnished by the University during training and may be kept by the student upon successful completion of the program.
- Academic credit for military science courses is granted according to the regulations of the individual colleges.
- Students who are interested in and qualified for flight training may be selected to undergo such training as provided by the University at the expense of the U.S. Army.
- Opportunity to attend Ranger or Airborne (parachute) training.

Scholarship Program

FEDERAL GOVERNMENT AWARDS

This program is designed to offer financial assistance to outstanding young men in the Army ROTC program who are interested in the army as a career. The program provides free tuition, books, laboratory fees, and a subsistence allowance of $100 per month for the period that the scholarship is in effect. Scholarships may be awarded for one, two, three, or four years. Four-year scholarships are open to all students entering Army ROTC as freshmen or during the freshman year for those students enrolled in a five-year University curriculum. Application is normally made for the scholarship during the first semester of the senior year in high school. One-year, two-year, and three-year scholarships are available only to students who have completed prerequisite basic or advanced course study.

ELIGIBILITY

Any citizen of the United States who can meet the following criteria is eligible to compete for an Army ROTC scholarship:
- Be at least seventeen years of age prior to the date on which the scholarship will become effective.
- Be able to complete all requirements for a commission and a college degree and be not more than twenty-eight years of age on June 30 of the year in which he becomes eligible for appointment as an officer.
- Enlist in the United States Army Reserve for a period of time necessary to complete the requirements for a commission.

- Agree to complete the requirements for a commission, to accept either a Regular Army or a reserve commission, whichever is offered, and to serve on active duty for a period prescribed at the time of commissioning.
- Be physically qualified in accordance with standards set for scholarship students.
- Be a high school graduate or have received equivalent credit from an acceptable state or national agency.

In addition, applicants for the three-year scholarships must:

- Have completed at least one academic year of college, or, if enrolled in a five-year baccalaureate degree program, have completed not more than two years at the time of enrollment as a scholarship cadet.
- Have completed at least one academic year and not more than one and one-half academic years of military science training at the time the award becomes effective. Waivers may be granted to prior servicemen and cadets authorized to receive advance placement.
- Be able to complete all requirements for a baccalaureate degree in three academic years if enrolled in a four-year degree program or four academic years if enrolled in a five-year degree program.

Applicants for two-year scholarships, in addition to meeting the above eligibility requirements must:

- Satisfactorily complete the on-campus Army ROTC basic course and be accepted by the professor of military science for enrollment in the advanced course.
- Have at least two years of academic study remaining to qualify for a degree.

Applicants for the one-year scholarships, in addition to meeting the eligibility requirements outlined above, must have completed the basic program and one year of the advanced program, and must be able to complete the requirements for a baccalaureate degree in one year if enrolled in a four-year degree program or in two years if enrolled in a five-year degree program.

CRITERIA FOR SELECTION

Application for the four-year scholarship is made during the fall semester of the senior year in high school and selection is based upon the following:

- Results of the CEEB Scholastic Aptitude Test or the assessment of the American College Testing (ACT) Program.
- High school academic record.
- Participation in extracurricular athletic and nonathletic activities.
- Personal observations.
- Physical examination.
- Interviews.

Selection for the one-, two-, and three-year scholarships will be based upon the applicant's college record in both academic and military studies, personal observations, and other criteria which the professor of military science may establish.

State Army ROTC Scholarship

For information regarding the state Army ROTC scholarships see page 87.

Two-Year Program

This program is designed specifically to meet the needs of junior college graduates and students of four-year colleges who have not taken Army ROTC during their first two years. Students with a baccalaureate degree who will have two or more years in graduate school are also eligible to apply for the two-year program. A six-week basic summer camp substitutes for the first two years of the four-year program. Two-Year Program cadets must obtain proficiency in American Military History and Principles of Leadership.

PREREQUISITES FOR ENROLLMENT

In addition to being a graduate of a junior college, or a student in a four-year college who has completed all requirements through the sophomore year, or a graduate student with two or more years remaining in graduate school, the student must meet the following prerequisites:

- Be physically and mentally qualified.
- Be of sound character.
- Be at least seventeen years of age. Student must not be more than twenty-eight years of age when commissioned.
- Be recommended by a board of officers.
- Successfully complete six weeks of summer camp training in lieu of the basic ROTC course normally taken as a freshman and sophomore.

STEPS REQUIRED FOR PARTICIPATION

Each student must:

- Complete the ROTC questionnaire, which is available at junior colleges and from the Office of Military Science, University of Illinois at Urbana-Champaign, 113 Armory, Champaign, Illinois 61820. (After applying, the student will be notified when and where to complete the remaining steps.)
- Take the ROTC qualifying examination.
- Take the medical examination.
- Attend a personal interview.
- Attend the basic summer camp.

Additional Information

For additional information regarding any of these programs, contact the Professor of Military Science, University of Illinois at Urbana-Champaign, 110 Armory, Champaign, Illinois 61820.

Prizes and Awards

American Legion Medals. The American Legion annually awards medals for military and scholastic excellence to two advance course cadets.

American Legion Auxiliary Awards. The Illinois Department of the American Legion makes an award of $50 to the retiring army brigade executive officer. Unit Number 24 awards $10 to the cadet placing second in the Hazelton Medal competition. Unit Number 71 presents an award of $25 to the second-year cadet who demonstrates military aptitude and personal development. The Nineteenth District presents an award of $25 to the winner of the Hazelton Medal Competition.

Armed Forces Communications and Electronics Association Award. A gold medal and certificate are awarded to the outstanding senior in Army ROTC majoring in electronic engineering.

Association of the United States Army. The association annually presents a medal and certificate to the outstanding advance course cadet.

Chi Gamma Iota Award. Alpha chapter of Chi Gamma Iota, a national veterans scholastic honorary society, annually presents a watch to the ROTC junior with the highest military and scholastic average.

Daughters of the American Revolution Award. A camera is presented to an advance course cadet demonstrating outstanding leadership and scholastic achievement.

Hazelton Medal. In 1890 Captain W. C. Hazelton provided a medal which is awarded to the best-drilled freshman in the basic course. Each competitor must have been in attendance at the University at least sixteen weeks of the current college year and have no more than one unexcused absence from drill. To be

eligible for this award, a student must have a grade of B in military science and an academic average of not lower than B in his first semester courses. Competition is normally held in March.

Reserve Officers' Association Medal. The Department of Illinois annually presents a medal to the outstanding senior cadet based on excellence in scholarship and achievement in leadership.

Superior Cadet Decoration Award. The Department of the Army annually awards a medal and ribbon to the outstanding freshman, sophomore, junior, and senior cadets.

Union Veterans of the Civil War Auxiliary Award. The Auxiliary to the Union Veterans of the Civil War annually awards a saber to the advance course cadet demonstrating exceptional ability in advanced military operations.

University Gold Medal. The Board of Trustees annually provides a gold medal to be awarded to the retiring battalion commander.

Veterans of Foreign Wars of the United States Auxiliary Award. A medal and a $25 government bond are awarded to the outstanding army sophomore in Pershing Rifles.

Veterans of Foreign Wars of the United States Auxiliary Award. A watch, medal, and certificate are presented to the outstanding company commander of Army ROTC for demonstrated leadership and academic achievement.

Woman's Relief Corps Award. The Illinois Department of the Woman's Relief Corps, an auxiliary to the Grand Army of the Republic, presents an award to the outstanding senior ROTC student of the three services for excellence in military scholarship.

Clair M. Worthy Military Science Award. The Clair M. Worthy award is presented to a senior for outstanding military leadership. The recipient must rank academically in the upper fourth of his military science class.

NAVAL ROTC

The Naval ROTC is a professional education program which gives the student an opportunity to earn a regular or a reserve commission in the United States Navy or Marine Corps at the same time he earns his degree. This professional foundation is then developed and broadened during active service as a commissioned officer after graduation and commissioning. Students may be enrolled in either the Navy Scholarship Program or the Navy College Program (nonscholarship). Naval science courses are also open to any student who meets the course prerequisites even though not enrolled in either of these programs.

Navy-Marine Scholarship Program

The Navy-Marine Scholarship Program provides students with full tuition, fees, books, and a tax-free subsistence pay (currently $100 per month) for four years. Students enrolled in a degree program which requires longer than four years to complete are permitted to take a leave of absence of up to a year to finish their baccalaureate degree. Upon graduating, scholarship students are commissioned in the regular U.S. Navy or U.S. Marine Corps and serve four years on active duty. Newly commissioned officers who qualify have the opportunity to continue their education toward an advanced degree. If after four years active duty they then choose, they may return to civilian life; a commission is retained in the Naval Reserve or Marine Corps Reserve for six years from their commissioning.

Each state and U.S. territory has quotas for which high school seniors and college freshmen compete each year. Selection is based on the applicant's Scholastic

Aptitude Test (SAT) or the assessment rendered by the American College Testing (ACT) Program, high school records, aptitude for the naval service as judged by interviews and certain physical qualifications.

Scholarship students have an opportunity during the summer to practice what they have learned in the classroom. Three summer training periods of approximately six weeks each are taken by the students either at sea aboard a U.S. Navy ship or at a naval air station or an amphibious base or on board a submarine. Students who choose to enter the U.S. Marine Corps spend their last summer training period at the Marine Corps Officer Candidate School. During these summer training periods, students are paid full active duty pay in accordance with their status as midshipmen.

Navy-Marine College Program

The Navy-Marine College Program is also a four-year curriculum. Students receive all required uniforms, naval science textbooks, and a retainer pay (currently $100 per month) during their junior and senior years. If their degree program requires longer than four years to complete, they will be permitted up to a year's leave of absence to finish their baccalaureate degree. Upon graduation, college program students are commissioned in the U.S. Naval or U.S. Marine Corps Reserve and serve three of their six-year reserve obligation on active duty. If newly commissioned officers qualify, they may continue their studies toward an advanced degree up to the master's level.

A student may apply for admission to the college program through the professor of naval science, who makes the final selection. This selection is based on mental, physical, and aptitude criteria. College program students also have an opportunity for summer training, usually after their junior year. They will go to sea on a ship of the U.S. Navy for six weeks or, if they choose to enter the Marine Corps, will attend Marine Corps Officer Candidate School for six weeks.

College program students are eligible to be appointed to the scholarship program through recommendation of the professor of naval science and approval of the chief of naval education and training.

Two-Year NROTC College Program

The Two-Year College Program provides a student with all required uniforms, naval science textbooks, and a retainer pay (currently $100 per month). Applicants should have two remaining years of study at the Urbana-Champaign campus. During the summer prior to their junior year, students attend a six-week Naval Science Institute conducted at Newport, Rhode Island. Transportation costs and a salary are paid to the student. After successful completion, they join their contemporaries in the college program and are also eligible for appointment to scholarship status. They participate in the six-week summer at sea training period between their junior and senior years.

Two-Year NROTC Nuclear Power Program with Scholarship

Acceptance into the NROTC Two-Year Nuclear Power Program training option guarantees a student a two-year NROTC scholarship. Summer training and benefits, as well as NROTC training during the junior and senior years, are the same as that for the college program described above. However, students agree to apply for selection to the Navy's nuclear power program during their senior year. Qualifications for the NROTC two-year nuclear power option include at least one semester of physics and one semester of calculus *or* two semesters of calculus completed with a B– or better average. Overall GPA should be B– or better with a preferred major of mathematics, physical sciences, or engineering.

Requirements

In addition to mental, physical, and aptitude requirements NROTC students must:

- Be citizens of the United States (women are eligible to apply for NROTC).
- Have attained their seventeenth birthday on or before June 30 of the year of enrollment and not have passed their twenty-first birthday by that date. If under eighteen, they must have the consent of their parents. Students must be less than twenty-five years of age on June 30 of the calendar year in which they are commissioned. The only exception to this age rule is for two-year college program students; they must be less than twenty-seven and one-half years of age on June 30 of the calendar year in which commissioned.
- Have no moral obligations or personal convictions that will prevent them from executing the oath of office.

NROTC students have a two-hour laboratory course, N.S. 100, each week for which there is no credit, and also take the following naval science academic courses.

FIRST YEAR	FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
	N.S. 111 — Principles of Naval Organization and Management	3	N.S. 112 — Naval Ship Systems I	3
SECOND YEAR				
	N.S. 121 — Naval Ship Systems II	3	Hist. 282 — History of Naval Warfare	3
THIRD YEAR (Navy)				
	N.S. 231 — Naval Operations and Navigation I	3	N.S. 232 — Naval Operations and Navigation II	3
THIRD YEAR (Marine)				
	Hist. 281 — History of Land Warfare	3		
FOURTH YEAR (Navy)				
	N.S. 242 — Naval Personnel Administration	3	Pol. S. 387 — National Security Policy	3
FOURTH YEAR (Marine)				
	N.S. 293 — History of Amphibious Warfare	3	Pol. S. 387 — National Security Policy	3

Each scholarship student's degree program must also include the following University courses (not required for Marine Corps option students):

	HOURS
Calculus	8
Physics	10
Computer science	3

Additional Information

Further information regarding Naval ROTC may be obtained in person from or by writing to the Professor of Naval Science, University of Illinois at Urbana-Champaign, 239 Armory, Champaign, Illinois 61820, telephone (217) 333-1061.

Prizes and Awards

American Legion Auxiliary, Department of Illinois Award. To the NROTC company which won the Color Company Competition.

American Legion, Department of Illinois Medals. To the two midshipmen of the sophomore class and the two midshipmen of the freshman class, NROTC, who have achieved the highest grade-point average and aptitude in naval science.

American Legion Auxiliary, Unit 24, Champaign Award. To the midshipman who, by his interest and zeal in extracurricular activities within the Naval Battalion, was chosen to be president of the Trident Naval Honorary Society, $10.

American Legion Auxiliary, Unit 71, Urbana Award. To the midshipman of the NROTC Rifle Team who has achieved the highest shooting average for the academic year, a $25 bond.

American Veterans of World War II. A medal and certificate are presented to the most outstanding junior demonstrating diligence in the discharge of his duties and his willingness to serve God and country for the mutual benefit of all.

Armed Forces Communications and Electronics Association Awards. A $500 scholarship awarded annually to selected second-year ROTC students majoring in communications, electronics, and electrical engineering, based on national competition. The association also presents medals and certificates of achievement to outstanding graduating ROTC seniors in these engineering curricula.

Chi Gamma Iota Award. Alpha chapter of Chi Gamma Iota, national veteran scholastic honorary society, annually makes an award to the outstanding ROTC junior student in any branch of the service with the highest academic and military average.

Chicago Tribune Awards. Two gold medals and two silver medals are presented by the *Chicago Tribune* to outstanding NROTC midshipmen. The awards are based on military achievement, scholastic attainment, and character.

Commander Maurice L. Horner, Jr., Memorial Award. A substantial monetary award is presented to the outstanding third-year midshipman, based on aptitude for naval service, naval science grades, other academic grades, and leadership. This award is administered by Illinois Commandery Foundation, Naval Order of the United States.

Daughters of the American Revolution Award. To the senior midshipman of the NROTC who contributed most significantly to the development of naval spirit and loyalty within the Battalion of Midshipmen.

Daughters of Founders and Patriots of America Award. The Illinois department of the national society awards a medal to the midshipman who has achieved the highest academic proficiency for one semester in the University.

Daughters of the Union Veterans of the Civil War Award. The department presents a medal to the NROTC student who, through leadership and academic proficiency, has achieved the position of the outstanding midshipman in the marine option program.

General Dynamics NROTC Award. A plaque is awarded to the midshipman of the senior class, NROTC, who has participated most extensively in extracurricular activities during his four years in the NROTC program.

Illinois Society of the Sons of the American Revolution Award. Presented to the NROTC midshipman who has distinguished himself in the planning and operation of the battalion's extracurricular activities.

Ladies Auxiliary to Veterans of Foreign Wars, Department of Illinois Award. A medal and a $25 bond to the midshipman contributing most toward the ideals of professional development.

Marine Corps League. A saber is awarded to the outstanding graduating senior in the Marine option program of the NROTC battalion.

National Sojourners Award for Americanism. This award is presented annually to the midshipman of the junior class, NROTC, who contributed the most to encourage and demonstrate Americanism within the NROTC unit and on the campus.

Navy League of the United States. A sword and scabbard is presented annually to the naval midshipman of the senior class with the highest cumulative naval science grade-point average.

Reserve Officers' Association Medal. The Cook County chapter annually awards a medal to the outstanding third-year advanced course student in each of the three services based upon excellence in scholarship and achievement in leadership.

The Society of American Military Engineers Award. Annual awards of gold medals to NROTC seniors and juniors majoring in engineering curricula who have demonstrated outstanding academic performance in their fields. Awardees are selected on the basis of national competition.

United States Naval Institute Awards. These awards are presented to the midshipmen with the highest and second highest grades in naval history courses.

University Gold Medal. The Board of Trustees presents a sword and scabbard to the midshipman of the graduating class who has achieved the highest grade-point average for seven semesters of naval science.

Veterans of Foreign Wars of the United States Award. To the midshipman of NROTC who, by demonstration of outstanding qualities of naval leadership, was chosen to command the NROTC Battalion for the academic year.

Woman's Relief Corps, Department of Illinois Award. A camera is awarded to the outstanding senior ROTC student in any branch of service who has excelled in military scholarship.

AIR FORCE ROTC

The Air Force ROTC program at the University of Illinois at Urbana-Champaign offers the opportunity of a professional training program for those college men and women who desire to serve in the U.S. Air Force as commissioned officers. The educational experience gained will provide the necessary background to enable the young officers to function effectively in an air force career.

General Military Course (GMC)

The first- and second-year educational program in air force aerospace studies includes instruction in A.F.A.S. 111, 112, 121, and 122. These courses are designed to give students basic information on world military systems and the role of the U.S. Air Force in the defense of the free world.

Professional Officer Course (POC)

The third and fourth years of air force aerospace studies instruction, consisting of A.F.A.S. 231, 232, 241, and 242, are designed to develop skills and attitudes vital to the career professional officer. Final selection of students rests with the professor of aerospace studies. Requirements for the Professional Officer Course are as follows:

- Each member of the POC must be a citizen of the United States.
- Members must be enrolled as full-time students in the University.
- Students must have at least two years remaining at the University as an undergraduate and/or graduate student upon entry into the program.
- Students must pass either a flight physical or a general service-type physical examination.
- Students must be able to complete all requirements for appointment as an officer in the United States Air Force prior to reaching twenty-six and a half years of age if flying-qualified or thirty years if nonflying-qualified.
- Successful completion of a six-week field training unit, held at selected air force bases, is a prerequisite for entrance into the two-year Professional Officer Course.

A four-week field training unit is a requirement for the four-year AFROTC curriculum.

- Students must achieve qualifying scores on the Air Force Officer Qualifying Test.
- Students who are qualified and accepted in a category leading to pilot training must agree to participate in, and pursue toward completion, a course of orientation flight training which is provided by the University under contract with and at the expense of the U.S. Air Force.
- Students must execute a written statement with the U.S. government agreeing to complete the Professional Officer Education Program (contingent upon remaining in school), to attend a summer training unit at the time specified, to accept a reserve commission in the United States Air Force upon graduation, and to serve four years on active duty after graduation if in a nonflying category, or to serve five years if in a flying category once the flying training (approximate duration of one year) has been completed. The summer training unit is a concentrated laboratory consisting of aerospace studies with a duration ranging from four to six weeks. The four-week training unit *is not* required of students who elect to attend the six-week summer training unit in lieu of completion of the General Military Education Program.
- Students must enlist in the Air Force Reserve before they can become members of the Professional Officer Education Program. This enlistment is terminated upon acceptance of a commission in the United States Air Force.
- Students must possess and maintain a quality grade-point average which is as high as, but preferably higher than, that required by their college for good standing. The scholastic record must be free from academic deficiency at the time of admission.
- Members must not be conscientious objectors.

BENEFITS AND ALLOWANCES FOR CADETS IN THE PROFESSIONAL OFFICER COURSE EDUCATION PROGRAM

Cadets in this program are eligible for the following benefits and allowances.

- Commission in the Air Force Reserve.
- Deferment from selective service.
- An officer-type uniform is furnished by the University during training which may be kept by the student for use on active duty.
- A nontaxable subsistence allowance of $100 a month during the two-semester academic year.
- A salary for attendance at the four- or six-week summer training unit, and travel allowance to and from the training.
- A maximum of 3 hours academic credit each semester, according to the regulations of each college.
- Space-available travel on military aircraft within the continental United States.
- Reduced rates for travel on railroads.

AFROTC College Scholarship Program

FRESHMEN

This program provides scholarships for a limited number of high school students accepted for admission at the University of Illinois. During their participation in AFROTC they will receive $100 per month while on grant along with paid tuition, fees, and laboratory expenses, and reimbursement for books.

Eligibility requirements for the scholarship program are:

- Be a male citizen of the United States.
- Be at least age seventeen on date of enrollment and under age twenty-five on June 30 of estimated year of commissioning.

- Have completed or will complete high school during the current academic year. High school students who will not be ready to enter college in the fall semester are not eligible and should not apply.
- Have no moral obligations or personal convictions that will prevent bearing arms and supporting and defending the Constitution of the United States against all enemies, foreign and domestic.
- Be accepted for enrollment at the University of Illinois.
- Achieve a qualifying score on the Air Force Officer Qualifying Test.
- Pass a Class I or IA medical examination for flying, administered by a physician of the United States Air Force.
- Enlist in the Air Force Reserve for a period of eight years. This commitment is terminated once commissioned as a second lieutenant in the U.S. Air Force.

Those interested should apply directly to Headquarters, AFROTC (SDSF), Maxwell Air Force Base, Alabama 36112. Applications should be received no later than December 31 of the year preceding enrollment for the fall semester of the following academic year.

SOPHOMORES AND JUNIORS

This program provides scholarships for a selected number of cadets who are enrolled in AFROTC. During their participation in the program they will receive $100 each month while on grant along with paid tuition, fees, and laboratory expenses, and reimbursement for books.

Eligibility requirements for the scholarship program are:

- Be actually enrolled in the AFROTC four-year program on campus.
- Achieve a qualifying score on the Air Force Officer Qualifying Test.
- Pass either a flying or nonflying physical examination.
- Meet, and be selected by, a board of Air Force officers and University representatives.
- Possess and maintain a quality grade-point average established by the school as meeting the requirement for good standing.

In addition each applicant selected must:

- Execute a written contract with the U.S. government agreeing to complete the Professional Officer Education Program, to attend a summer training unit at the specified time, to accept a reserve commission in the air force upon graduation, and to serve four years on active duty after graduation if in a nonflying category, or five years if in a flying category once the flying training (approximate duration of one year) has been completed. The summer training unit is a concentrated laboratory consisting of aerospace studies with a duration of twenty-eight days.
- Enlist in the Air Force Reserve for the period of eight years. This enlistment is terminated upon completion of the AFROTC program and acceptance of an air force commission.
- Students who are qualified and accepted in a category leading to pilot training must also agree to participate in, and pursue, a course of orientation flight training which is provided by the University under contract with and at the expense of the U.S. Air Force.

Staff and Equipment

Air Force personnel are assigned by Headquarters USAF as instructors or administrators in the AFROTC unit after acceptance by the Military Education Council, University of Illinois at Urbana-Champaign. The senior officer is designated as the professor of aerospace studies. All other officers hold appropriate subordinate academic and military positions on his staff. All officers must possess a minimum of a master's degree and have completed the Air University's academic instructor course.

The Armory at the University of Illinois contains offices, classrooms, and a leadership laboratory. All classes are conducted in the Armory.

Additional Information

Further inquiry concerning the AFROTC program at the University should be directed to the Professor of Aerospace Studies, AFROTC, University of Illinois at Urbana-Champaign, 232 Armory, Champaign, Illinois 61820.

Prizes and Awards

Air Force Association Award. A medal is presented to the outstanding senior cadet in AFROTC.

American Legion Awards. The Illinois Department of the American Legion awards a medal to the freshman, sophomore, junior, and senior cadet with the highest military theory average for the current school year.

American Legion Auxiliary Awards. The Illinois Department of the American Legion Auxiliary makes an award of $50 to the retiring AFROTC cadet commander. Unit Number 24 of Champaign presents a $10 award to the best-drilled second-year Air Force cadet. Unit Number 71 of Urbana presents a $25 bond to the most outstanding first sergeant of the AFROTC cadet wing.

Armed Forces Communications and Electronics Association Award. A gold medal is awarded to the outstanding senior in AFROTC enrolled in the electrical engineering curriculum and majoring in communications or electronics engineering.

Chi Gamma Iota Award. Alpha chapter of Chi Gamma Iota, national veteran's scholastic honorary society, annually makes an award to the outstanding ROTC junior student of all military services on the basis of excellence in scholarship, both academic and military.

Daughters of the American Revolution Award. The Daughters of the American Revolution present a ring to the outstanding squadron commander for the year.

Daughters of Union Veterans of the Civil War Award. The Department of Illinois Daughters of Union Veterans of the Civil War present a medal to the sophomore with the highest military grade average.

Reserve Officers' Association Medal. The Cook County chapter annually awards a medal to the outstanding third-year student. Selection is based upon excellence in scholarship and achievement in leadership.

Sons of the American Revolution Award. The Illinois Society of the Sons of the American Revolution presents a medal to the basic corps cadet maintaining the best military appearance and bearing throughout the year.

University Gold Medal. The Board of Trustees annually provides a gold medal to be awarded to the cadet selected to be the air force cadet wing commander for the coming year.

Veterans of Foreign Wars of the United States Award. The Illinois Department of the Veterans of Foreign Wars of the United States awards a watch, a silver citizenship medal, and a certificate of merit to the outstanding group commander.

Veterans of Foreign Wars of the United States Auxiliary Award. A medal and a $25 bond are awarded to the member of the Arnold Air Society Squadron who has made the most valuable contributions to the successful operation of the organization.

Woman's Relief Corps Tablet. The names of the senior cadets of the Air Force, Army, and Navy ROTC who have excelled in scholarship are inscribed on a bronze tablet.

Urbana Council on Teacher Education

Six colleges of the University of Illinois at Urbana-Champaign offer bachelor degree programs which lead to teacher certification in the state of Illinois and to qualification for teacher certification in many other states. These six colleges include the College of Agriculture, the College of Education, the College of Engineering, the College of Fine and Applied Arts, the College of Liberal Arts and Sciences, and the College of Physical Education. The Urbana Council on Teacher Education is responsible for the coordination of teacher education curricula at the Urbana-Champaign campus and for maintaining the relationship between the campus and state certification authorities. The offices of the Urbana Council on Teacher Education are located in 120 Education Building.

Graduates of approved teacher education curricula (see page 117) are eligible for teacher certification in Illinois and many other states (see page 119).

ADMISSION REQUIREMENTS

Applicants to teacher education curricula must meet the admission requirements of the colleges and departments offering the chosen curricula. General admission requirements are presented in the Admissions Chart which begins on page 44. A transfer student whose cumulative grade-point average is less than the stated minimum may apply for admission, but will be considered individually on a petition basis if enrollment vacancies exist in the college and curriculum to which admission is being sought. If admitted, such students may be placed on provisional status by the Urbana Council on Teacher Education.

ACADEMIC QUALIFICATIONS FOR TEACHER EDUCATION

Committees of the Urbana Council on Teacher Education review each student's academic progress every semester. At the time of each assessment a student is normally assigned the status of *good standing in teacher education* if his University of Illinois grade-point average, cumulative grade-point average, and major field grade-point average meet council and curriculum criteria. A student who does not meet those criteria may be placed on *provisional status in teacher education* or *disqualified*. A student placed on disqualified status may transfer to a non–teacher education curriculum within the University if he is academically eligible.

Typically, the grade-point average earned at the University of Illinois at Urbana-Champaign and the cumulative average required for good standing in teacher education is 3.5 (A=5.0). However, there are variations among curricula in the minimum academic requirements. In certain instances, curriculum descriptions elsewhere in this catalog may indicate special academic requirements for good standing in teacher education. Students may consult their teacher education adviser or the Coordinator of Undergraduate Programs, 120 Education Building, for additional information concerning academic regulations and policies affecting teacher education.

PERSONAL QUALIFICATIONS FOR TEACHER EDUCATION

It is common knowledge that teaching effectiveness is influenced not only by academic proficiency but also by the personal characteristics of the teacher. Recognizing the importance of these personal factors, counseling services are available for all students in teacher education. Any student wishing additional information regarding counseling services may make an appointment by calling the office of the

Coordinator of Undergraduate Programs (217) 333-2800, or by visiting 120 Education Building.

Since it is essential that counseling services be offered as soon as the need becomes apparent, teacher education advisers and faculty are asked to participate in this effort. Staff members are invited to recommend counseling for any student about whom concern is felt. A student who is recommended for counseling will receive a written request to make an appointment to discuss matters in which a counselor may be of assistance. Students who receive a letter of this nature must respond to the request as a requirement of the Urbana Council on Teacher Education. Failure to respond will jeopardize the continuation of the student in teacher education. During the appointment the student will be informed of the counseling services available on this campus. The use of these services will usually be optional. In exceptional cases, however, a student may be required to enter counseling with one of the campus services. Such referrals are mandatory for a student who wishes to continue in teacher education.

STUDENT TEACHING

Students should apply for tentative student teaching assignments on completion of 60 semester hours of credit. Student teaching application forms may be obtained from the appropriate student teaching office. Normally, after earning 60 semester hours, eligible students will receive an invitation to apply for student teaching assignment from the Urbana Council on Teacher Education. Students who are eligible to apply for assignment, but who have not received an invitation to do so, should contact the appropriate office of student teaching early in the fall semester. Students who will not be on campus during the fall semester, but who expect to enroll in educational practice (student teaching) during the next school year, should secure application forms from their office of student teaching before they leave campus. On completion of 75 or more semester hours, students who are in good standing in teacher education and who have applied for student teaching assignments will receive notification of their assignments. *The latest date for any currently enrolled, eligible student to apply for a student teaching assignment for the next academic year is the end of the second week in December. Currently enrolled students who apply after this date cannot be guaranteed a student teaching assignment during the next academic year. Students disqualified for teacher education and students not officially registered in teacher education curricula are not eligible for student teaching.*

Students on college academic or disciplinary probation are not eligible for student teaching during the semester in which the probationary status is in effect and are not permitted to engage in student teaching activities.

Students in teacher education should anticipate and plan for off-campus assignments during the professional semester. For most students, an additional expense of approximately $275 will be incurred during the semester in which student teaching is scheduled. Only a very limited number of assignments for student teaching is available in the vicinity of the campus. Students will be assigned to local schools as student teachers only in cases of special need. It is not presently possible to arrange local assignments for all whose need would justify such assignment.

Any student who may wish to complete student teaching through another university, yet receive a University of Illinois degree, must have the written consent of his adviser, college, and the Urbana Council on Teacher Education.

TEACHER EDUCATION CURRICULA

Each student seeking a degree and teacher certification must complete the requirements of his chosen curriculum. If the curriculum requires a second teaching field,

it must be selected from the list below of approved teacher education minors. Teacher education curricula and the colleges which offer them are listed below.

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Safety and driver education 371
Social studies 350
Spanish 346
Speech 351

TEACHER CERTIFICATION

General Requirements

In order to be eligible for teacher certification in the state of Illinois students must complete all curriculum requirements, including at least 3 semester hours of basic physical education and/or health courses. All teacher education curricula must include one course in U.S. history and one course in political science which covers the constitutions of Illinois and the United States.

The *School Code of Illinois* specifies that each person who applies for certification must be a citizen of the United States or must have filed a declaration of intent to become a citizen of the United States.

Students who enroll in advanced foreign language courses as a result of performance on a placement examination are often eligible to receive prerequisite credit in that language for teacher certification purposes only. Those who are qualified to receive prerequisite credit, and who have declared that foreign language as their major or minor, should report their circumstances to the Recorder, Office of Admissions and Records, 69 Administration Building, during the second semester prior to graduation. Transfer students should go directly to the appropriate language department office to initiate the procedure.

Application Procedures

Before graduation, each student who wishes to apply for teacher certification in the state of Illinois should complete an application for a Certificate of Entitlement. Application forms may be obtained in 120 Education Building. Completed forms should be returned to 120 Education Building within the first month of the student's final semester. Each qualified graduate of a teacher education program who returns the application on time will receive a Certificate of Entitlement several weeks after graduation. To receive an Illinois Teacher's Certificate, the teacher certification entitlement card must be presented to the superintendent of any Educational Service Region in Illinois.

In the first week of his final semester, any student who wishes to teach in the city of Chicago should write to the Board of Examiners, Board of Education, 228 North LaSalle Street, Chicago, Illinois 60601.

Questions concerning teacher certification should be directed to the Office of the Coordinator, Urbana Council on Teacher Education, University of Illinois at Urbana-Champaign, 120 Education Building, Urbana, Illinois 61801.

EDUCATIONAL PLACEMENT

The University's Educational Placement Office stores and processes professional credentials of University students and alumni who are qualified to apply for employment in educational institutions. The placement office announces vacancies to registered candidates through a weekly list available at the office. Experienced consultants are available to assist candidates in setting up credentials and in planning their search for new employment. Students seeking educational employment should register with the Educational Placement Office, 140 Education Building, in the fall semester of their senior year. Meetings for seniors are held in the first week of October to begin this process.

Colleges and Other Academic Units

The undergraduate programs offered by the colleges, the Institute of Aviation, and the schools at the Urbana-Champaign campus of the University of Illinois are described in detail in the following pages. Frequent reference is made to course numbers and titles; please refer to Appendix D on page 404 for the list of Course Abbreviations Used in Curricular Listings.

Every two years the University publishes the *Courses Catalog* which lists and describes all the undergraduate and graduate courses offered at this campus. A list of courses offered each term is published in the *Timetable* which is issued in April for the fall term, in March for the summer term, and in October for the spring term. Copies of these publications may be obtained on campus from the information office of the Illini Union, or by writing to the Director, Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801.

Amy Chanzit, Hoffman Estates, Illinois

COLLEGE OF AGRICULTURE

University of Illinois at Urbana-Champaign
104 Mumford Hall
Urbana, IL 61801

The College of Agriculture is the land-grant agricultural college for the state of Illinois. It provides both undergraduate and graduate instruction in agriculture and in home economics. It is by law responsible for the Illinois Agricultural Experiment Station and the Cooperative Extension Service in agriculture and home economics. The college also carries on agricultural assistance work in developing countries throughout the world.

Undergraduate students enroll either as new freshmen or as transfer students from other junior or senior institutions. The program for the bachelor's degree usually requires a total of four years of study, although this can be reduced by passing proficiency examinations, receiving advance placement credit, attending summer sessions, and carrying heavier than normal course loads.

Flexibility in course programming is possible for the better-than-average student through the agricultural science curriculum and through honors programs in all curricula.

Students carry on study in the other colleges of the University and have for their use the resources of the great library of the University. A wealth of cultural and social opportunities present themselves to those students alert to their value.

The college, located in one of the greatest agricultural regions of the world, is in an advantageous position for the teaching and research in agriculture and its related occupations. A great diversity of agricultural instruction is available here; instruction in agricultural subjects is organized under nine departments. Students can choose from thirty-one curricula, majors, and options within agriculture, and select from over 275 courses in agricultural subjects. The College of Agriculture maintains farms and plots, a forest plantation, orchards, greenhouses, herds and flocks of all kinds, and laboratories to assist in instruction.

The School of Human Resources and Family Studies offers 75 undergraduate and graduate courses and provides for the baccalaureate degree through either the College of Agriculture or the College of Liberal Arts and Sciences. Excellent facilities for study are provided in Bevier Hall, the large, modern home economics building, and in the fine Child Development Laboratory.

DEPARTMENTS, OFFICES, AND CURRICULA

Agriculture

The Office of Agricultural Communications offers courses in agricultural communications media and methods, information program planning, rural-urban communications, teaching of college-level agriculture, and extension communications management. Students in the agricultural communications curriculum prepare for careers in agricultural writing and editing, radio and television broadcasting, marketing communications, public relations, and photography.

The Department of Agricultural Economics offers courses in farm management; farm business accounting and organization; farm appraisals; land economics; agricultural finance; prices and statistics; marketing agricultural commodities; commodity futures markets; agribusiness management; agricultural policies; economic development (international) and agricultural history (American); rural sociology; agricultural law; and farm taxation.

The Department of Agricultural Engineering offers courses in agricultural engineering and agricultural mechanization which cover the principles of engineering as applied to agriculture, including problems in the areas of soil and water control, farm buildings and housing, field machinery, tractors, crop processing, and farmstead mechanization. Instruction in farm shop practices and techniques is offered.

The Department of Agronomy offers courses in both crops and soils. Instruction includes courses in plant breeding and genetics; crop evaluation; crop protection; production and evaluation of cereals, corn, soybeans, and forage crops; crop physiology; design of field experiments; weeds and their control; the origin and development of soils, land appraisals, soil conservation, soil chemistry, soil physics, soil fertility and fertilizer use, soil management, and soil microbiology.

The Department of Animal Science offers courses in the areas of animal evaluation, genetics, nutrition, physiology, meat science, and other courses concerned with the application of scientific principles to the management of beef cattle, horses, poultry, sheep, swine, and companion animals. The major is available with options in general animal science or companion animal biology.

The courses offered by the Department of Dairy Science are concerned with the breeding, feeding, and management of dairy cattle, including genetics, nutrition, physiology, and lactation; and the biochemical and microbiological phases of milk production and utilization.

The Department of Food Science offers courses in the application of engineering, chemistry, physics, microbiology, and nutrition to the processing, formulation, packaging, and distribution of food. Two undergraduate curricula, food science and food industry, are offered.

The Department of Forestry curriculum in forest science prepares students for all phases of the management of forest properties (private or public, large or small) for the production of valuable wood products or for watershed protection, wildlife habitat, recreational enjoyment, or other benefits. The curriculum in wood science is concerned with the properties of wood as a raw material and its manufacture into useful products.

Courses in the Department of Horticulture provide instruction in pomology, vegetable crops, floriculture and ornamental horticulture, and in subjects common to all these divisions, such as plant propagation, plant genetics, plant anatomy and morphology, and the physiology and ecology of horticultural plants, as well as special problems in experimental horticulture.

The courses offered by the Department of Plant Pathology are designed to prepare students for graduate work in plant pathology and to provide supplementary training for students specializing in related fields such as agronomy, food science, forestry, horticulture, and plant protection. A special option in crop protection is

available to students interested in a broad comprehensive approach to controlling diseases, weeds, and insects, plus managing cultural practices to maximize yields.

A program to prepare secondary teachers of agricultural occupations is offered jointly by the College of Agriculture and the College of Education. Students may follow one or more of the five specialty options — agricultural production, agricultural mechanization, agricultural supply and products, ornamental horticulture, and agricultural resources and forestry. Upon successful completion of an option in the curriculum in agricultural occupations for secondary teachers, students are qualified for an Illinois secondary teaching certificate.

School of Human Resources and Family Studies

The School of Human Resources and Family Studies offers courses concerned with the cognitive, emotional, and creative development of human beings; the relationship of food and nutrition to health; the consumption of human and material resources; the effect of technology on food, clothing, shelter, and interpersonal relationships; and the physical characteristics of man's near environment in terms of his material, behavioral, and aesthetic needs.

ADMISSION REQUIREMENTS

Besides meeting the general admission requirements of the University, students entering the College of Agriculture must have taken prior to entry the subjects prescribed in the Admissions Chart on page 44. It is highly recommended that prospective students take 4 units of English and 1 or more additional units of mathematics beyond algebra and plane geometry. At least 2 and preferably 3 units of science are desirable (biology, chemistry, and physics), and two units of social science are recommended. If available, vocational agriculture can be quite useful, particularly for students planning to enter the core curriculum.

Students entering as freshmen must meet the minimum selection index for the curriculum they wish to enter as determined by high school rank and test scores.

Transfer students entering the agricultural science, agricultural occupations, and home economics education curricula must have a scholastic grade-point average in their collegiate baccalaureate-level work of not less than 3.5 in terms of the grading system of the University of Illinois (A=5.0). The admission of transfer students to curricula in the College of Agriculture other than those listed above will follow the general University requirement of a 3.25 grade-point average.

SPECIAL PROGRAMS

Combined programs may be arranged in agriculture and business administration, and agriculture and agricultural engineering.

Extramural courses for advanced undergraduate or graduate credit are offered each semester at several locations in the state.

Many specialized noncredit short courses, conferences, and special events of interest to rural and urban people, homemakers, and the agricultural industries are available.

The College of Agriculture does not offer instruction by correspondence courses.

HONORS PROGRAMS

Honors at Graduation

Honors awarded to superior students at graduation are designated on the diploma as Honors, High Honors, and Highest Honors. For the degree with Honors, the

student must have a minimum cumulative grade-point average of 4.2 (A = 5.0); for the degree with High Honors a minimum cumulative grade-point average of 4.5; and for the degree with Highest Honors a minimum cumulative grade-point average of 4.8.

Edmund J. James Scholars

The James Scholar Program in the College of Agriculture is designed for undergraduate agriculture students who have demonstrated exceptional ability through superior academic performance. The program provides opportunities for these students to utilize their time and talents in ways that can further enrich their educational experience.

Freshmen may elect to participate in the program as James Scholar designates.

Resident and transfer students who have not previously participated in the program but who have maintained a high scholastic record are also eligible to become James Scholars. They may obtain information about the program from the honors coordinators and academic advisers in the individual departments and from the director of resident instruction of the College of Agriculture.

Awards

Alpha Zeta Award. Each year the name of the freshman in the College of Agriculture who makes the highest grade average for both semesters is inscribed on the Alpha Zeta plaque in the Agriculture Library.

American Society of Animal Science Scholarship Awards. Each year the society presents an official pin to students in animal science who have exhibited outstanding scholastic achievement. Names of winners are published in the *Journal of Animal Science*.

Wilbur H. Coultas Memorial Award. Income from a fund established in memory of the late Wilbur H. Coultas, a graduate of the College of Agriculture in the class of 1923, is awarded as a prize to an outstanding graduating senior in the College of Agriculture. The name of the winner is inscribed on a memorial plaque in the Agriculture Library.

C. J. Elliott Memorial Award. Income from a fund established in memory of the late C. J. Elliott, a graduate of the College of Agriculture in the class of 1912, is awarded as a prize to an outstanding senior in the College of Agriculture.

Fighting Illini Pork Club Awards. Cash awards are presented annually to freshmen or transfer students majoring in animal science who exhibit talent in the field of meat animal evaluation and selection.

Forest Products Research Society (FPRS) Outstanding Student Award. Each year the Midwest Section of FPRS presents a one-year membership to two seniors, one junior, and one junior or sophomore in the wood technology and utilization curriculum who have excelled in scholarship and have shown superior professional attributes.

Gamma Sigma Delta Prize. Each year the senior in the College of Agriculture who ranks highest in scholarship, on the basis of a minimum of four semesters of work in residence at the University, has his name inscribed on the Gamma Sigma Delta plaque in Mumford Hall.

Isabel Bevier Home Economics Award. Each year the name of the freshman in home economics who makes the highest grade-point average is engraved on a plaque provided by the Home Economics Club.

Janice M. Smith Outstanding Senior Award. Each year a home economics senior is chosen for this award which is based on scholarship and contributions to various

student activities. The name of the recipient is placed on a plaque hung in the Home Economics Library.

National Block and Bridle Merit Trophy Award. A plaque is presented annually to the outstanding senior in the animal science major, based on scholarship and student activities.

Omicron Nu Plaque. Each year the name of the senior in home economics who ranks highest in scholarship is inscribed on the Omicron Nu plaque which hangs in Bevier Hall.

Harry G. Russell Award. The income from an endowment fund is used to present cash awards to one outstanding sophomore and one outstanding junior who are members of the Hoof and Horn Club and have excelled scholastically and shown leadership potential in meat animal science. Names of winners are inscribed on a plaque included in the Hoof and Horn Club Awards Exhibit.

Society of American Foresters (SAF) Outstanding Senior Award. The Central States Section of SAF annually awards a one-year membership and an official society tie pin to the senior in the forest production curriculum who has excelled scholastically and has shown superior promise professionally.

Xi Sigma Pi Outstanding Freshman Award. The forestry student with the highest scholastic record receives a double-bitted cruiser's ax with an engraved brass plate on the helve from Alpha Alpha chapter.

GRADUATION REQUIREMENTS

Students who have satisfied the general University requirements for graduation, have maintained a satisfactory record of scholarship and moral character, and have completed a curriculum in the College of Agriculture, including the prescribed studies and sufficient electives, are graduated with the degree of Bachelor of Science.

The total credit-hour requirements for the various degrees are listed on page 90. (See credit limitations on page 128.)

Effective June 1, 1972, physical education is voluntary, except in teacher education curricula. The college will count up to 3 semester hours of credit in physical education basic instruction courses (numbered below 150). There is no limit on the number of hours of professional courses. For teacher certification each student must complete a minimum of 3 hours of physical and/or health education. Both the hours and grades earned in these courses will be counted in the semester grade-point average and the cumulative grade-point average.

This action is not retroactive. Students registered in the University prior to June 1, 1972, who have completed one or more semesters of physical education will not be permitted to count these courses toward graduation. Likewise, transfer students entering the University after June 1, 1972, will not be allowed to count any courses in physical education, taken prior to June 1, 1972. This does not prohibit continuing or transfer students from taking physical education courses for credit after June 1, 1972, within the rules and regulations stated above.

A candidate for graduation must complete all special examinations to remove failures, all proficiency examinations, all excused grades, and all course substitutions by the beginning of the tenth week of his final semester.

Students who have transferred from other educational institutions to the University of Illinois at Urbana-Champaign and who are candidates for the degree of Bachelor of Science in an agricultural curriculum are required to complete in residence at least half of the technical agriculture credit required for the degree. Transfer students must satisfy University residence requirements.

Each candidate for graduation must have a grade-point average of not less than 3.0 (A=5.0) including grades in courses transferred from other institutions,

and a grade-point average of not less than 3.0 in all courses taken at the University of Illinois at Urbana-Champaign. For exceptions, see page 90 of this catalog.

CREDIT LIMITATIONS IN CERTAIN COURSES

The following credit limitations apply to all curricula of the College of Agriculture:
- No credit in typing or shorthand may be counted toward graduation.
- Credit for courses in religion, up to 10 hours, may be counted toward graduation.
- Not more than 10 hours of credit in special problems courses may be counted toward graduation in agriculture and home economics curricula.
- Not more than 4 hours of credit in music ensemble courses may be counted toward graduation.
- Not more than 15 credit hours in approved Institute of Aviation courses may be counted toward a degree in agriculture.

GENERAL EDUCATION REQUIREMENTS

All College of Agriculture students who entered the University after June 1, 1964, are required to satisfy certain minimum hours in the areas of the natural sciences. the humanities, and the social sciences. 199 courses may not ordinarily be used to fulfill the general education requirement. Individual courses may be accepted by petition.

NATURAL SCIENCES

Students in an agriculture curriculum satisfy the natural sciences requirement by completing a curriculum of the college. Students in the School of Human Resources and Family Studies (home economics, home economics education, interior design) should see requirements for these curricula on pages 159 to 163 and 164 to 166.

SOCIAL SCIENCES[1]

A minimum of 9 hours of approved social sciences is required in all curricula of the college. Some curricula require more than the 9-hour minimum. Courses must be selected from at least two departments. Specific social science courses, prescribed in certain curricula, may be counted toward the 9-hour requirement. The approved list of social science courses follows. (Completion of any course approved on an earlier social science listing will be counted toward the 9-hour requirement.)

Anth. — Any courses except 143, 200, 210, 300, 307, 315, 316, 317, 337, 343, 344, 345, 346, 347, 356, 372, 396
Econ. — Any courses except 171, 172, 173, 272, 367, 368
Geog. — Any courses except 102, 103, 185, 303, 312, 313, 348, 370, 371, 373, 378
Hist. — Any courses
Pol. S. — Any courses
Psych. — Any courses except 135, 143, 211, 217, 235, 306, 307, 311, 347, 390
Rel. St. — 229, 304, 328, 363
Soc. — Any courses except 185, 385, 386, 387

HUMANITIES[2]

All students must complete a minimum of 6 hours from the approved courses listed below. Some curricula prescribe certain courses which, if on the list, may be used toward completion of this requirement. (Completion of any course approved on an earlier humanities listing will be counted toward the 6-hour requirement.)

Arch. — 211, 212, 310, 311, 312, 313, 314, 315, 316, 317
Art — 110,[2] 111,[2] 112,[2] 115,[2] 116,[2] 210, 211, 212, 213, 217, 218, 219, 220, 221, 222, 223,

224, 301, 303, 304, 305, 307, 308, 309, 310, 311, 312, 313, 314, 316, 317, 318, 321, 322, 323, 324, 325, 326, 327, 328, 330, 331, 332, 334, 336, 340
Cl. Arc. and Cl. Civ. — All courses except Cl. Civ. 100. (Also see foreign languages.)
C. Lit. — Any courses
Dance — 340, 341, 346
Engl. — Any courses except English 301, 302, 381; rhetoric; English as a second language; and business and technical writing.
Foreign languages — Any language literature and/or culture courses, including language study courses beyond the second semester (intermediate) level. Not elementary or introductory skills courses.
Human. — Any courses
Music — 113, 115, 130, 131, 134, 213, 214, 310, 311, 312, 313, 314, 315, 316, 327, 334, 335, 336
Phil. — Any courses except 353 and 354
Rel. St. — Any courses except 108, 109, 111, 112, 200, 229, 328, 363
Sp. Com. — 177,[2] 178,[2] 207, 210, 213, 243, 252, 254, 307, 308, 315, 317, 319, 322, 350, 352, 361, 362, 366, 387
Theat. — 101,[2] 102,[2] 103,[2] 104,[2] 105,[2] 263, 352, 361, 362, 366, 368

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[1] Courses which are open to freshmen include Anth. 101, 102, 103; Econ. 102 (second semester freshmen); Geog. 104, 105; Hist. 111, 112, 131, 132, 151, 152, 168, 169, 171, 172, 173, 174; Pol. S. 184; Psych. 101, 103, 105; Soc. 100, 131.

[2] Courses which are open to freshmen in addition to Cl. Civ. 110, 111, 112; Engl. 101, 102, 103, 115, 116; Human. 114; Phil. 101, 102, 103, 104, 105, 110; Rel. St. 100, 110, 120.

Curricula

CORE CURRICULUM IN AGRICULTURE

For the degree of Bachelor of Science in Agriculture

This is a core curriculum in that it provides for a common core program for the first two years. All students in agriculture, except those in agricultural communications, agricultural industries, agricultural occupations for secondary teachers, agricultural science, food industries, food science, forest science, home economics, home economics education, interior design, ornamental horticulture, restaurant management, and wood science, pursue the same general core program for the first two years. The student who starts in the core curriculum may select one of the approved majors for the junior and senior years, or he may continue with a broad general program by selecting the general major.

Freshmen may enter this curriculum without specifying a major but must make their choice of major not later than the beginning of the junior year. Transfer students entering this curriculum with 45 or more semester hours must indicate their proposed major on the application for admission.

The purposes, objectives, and requirements of the various majors and options are outlined on the following pages.

The core program for the first two years includes a foundation in basic sciences essential to a better understanding of agriculture. In addition the student has a choice of introductory courses in agriculture. By the proper choice of basic courses related to the student's ultimate objective and major, the student is ready to proceed with more advanced courses in his junior and senior years. Agr. 100, required of all freshmen in agriculture, is designed to assist the student in clarifying his objectives.

Upon completion of all requirements of this curriculum, with an approved major and a minimum of 126 hours of credit, the student is awarded the degree of Bachelor of Science in Agriculture.

Prescribed Courses

	HOURS
Rhet. 105 or 108 — Composition[1]	4
Sp. Com. 101 — Principles of Effective Speaking[1]	3
Agr. 100 — Agriculture in Modern Society[2]	1
Agriculture core courses: Three as listed below and as required for student's major	9-10
Biological sciences: Two or more of the following areas as required by the student's major:[3] Bot. 100 — General Botany; or Mcbio. 100 — Introductory Microbiology, and Mcbio. 101 — Introductory Experimental Microbiology; or Zool. 104 — Elementary Zoology	8-9
Chem. 101 — General Chemistry[4]	4
Chem. 102 — General Chemistry (including organic) or Chem. 103 — General Chemistry: organic chemical studies[5]	4
Math. 111 — Algebra, or Math. 112 — College Algebra, or exemption by Mathematics Placement Test	0-5
Math. 114 — Plane Trigonometry, or Math. 124 — Introductory Analysis for Social Scientists; or one course from computer science or statistics; or exemption from Math. 114 by the Mathematics Placement Test[6]	0-4
Econ. 101 — Introduction to Economics	4
Social science courses (see page 128)	6
Humanities courses (see pages 128 to 129)	6

[1] Sp. Com. 111 and 112 — Verbal Communication, 3 hours each, may be substituted for Rhet. 105 or 108, and Sp. Com. 101.

[2] Agr. 100 — Agriculture in Modern Society, 1 hour, is required for entering freshmen only. Transfer students are exempt.

[3] Biological science requirements by major are:
Agricultural economics — two courses from Bot. 100; Mcbio. 100 and 101; Zool. 104; or one course from these three areas plus one of the following: Math. 124 or 120.
Agricultural mechanization — two courses from Bot. 100; Mcbio. 100 and 101; Zool. 104.
Agronomy — Bot. 100; and Mcbio. 100 and 101, or Zool. 104.
Animal science — Bot. 100, Mcbio. 100 and 101, and Zool. 104.
Dairy science — two courses from Bot. 100; Mcbio. 100 and 101; Zool. 104.
General agriculture — two courses from Bot. 100; Mcbio. 100 and 101; Zool. 104.
Horticulture — Bot. 100; and Mcbio. 100 and 101, or Zool. 104.

[4] To take Chem. 101, a student must have completed Math. 111 or 112 (or equivalent) or have gained exemption by the Mathematics Placement Test. He must also have a satisfactory score on the Chemistry Placement Test or take Chem. 100 (2 hours) before enrolling in Chemistry 101.

[5] Chemistry 102, which includes an introduction to organic chemistry or Chemistry 103, is required except for (a) majors in agricultural economics, general option, marketing option or rural sociology option, who may substitute Math. 134; or 130 or 131; or 135, for Chem. 102 or Chem. 103; and (b) majors in agricultural mechanization who may substitute Phycs. 102 for Chem. 102.

[6] See requirements for the various majors. Some require additional mathematics, computer science, or statistics.

Agriculture Core Courses

In addition to Agr. 100, one course from three of the four areas listed below must be completed by each student in this curriculum.

	HOURS
Agricultural economics	
Ag. Ec. 100 — Introductory Agricultural Economics	3
Agricultural mechanization and food science	
Ag. M. 100 — Engineering Applications in Agriculture, or F.S. 101 — Food in Modern Society	3
Animal sciences	
An. S. 100 — Introduction to Animal Science, or D.S. 100 — Introduction to Dairy Production	3
Plant and soil sciences	
Agron. 101 — Introductory Soils, or Agron. 121 — Principles of Field Crop Science, or For. 100 — Farm Forestry, or Hort. 100 — Introductory Horticulture	3-4

First-Year Program

Courses must be chosen from those listed on page 130 and must include one agriculture course each semester in addition to Agr. 100.

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Agricultural core course	3-4
Biological science	4-5
Mathematics or chemistry	2-5
Rhet. 105 or 108 — Composition, or Sp. Com. 111 — Verbal Communication[1]	3-4
Total	14-17

SECOND SEMESTER	HOURS
Agricultural core course	3-4
Biological science	4
Chemistry	4
Sp. Com. 101 — Principles of Effective Speaking, or Sp. Com. 112 — Verbal Communication	3
Social science	0-3
Total	15-17

[1] All students must take Sp. Com. 111 and 112 — Verbal Communication, or Rhet. 105 or 108 and Sp. Com. 101.

SECOND YEAR

The student will, in consultation with his adviser, select from those courses listed as prescribed and appropriate to his area of interest.

THIRD AND FOURTH YEARS

For the third and fourth years, see the requirements of the approved major. In addition to the prescribed courses listed on page 130, the requirements include completion of: (1) All prescribed courses listed for the major. (2) Additional courses as required to give 40 hours in agriculture. One-half of the agriculture hours (20 hours) must be taken at the University of Illinois at Urbana-Champaign. (3) Sufficient open electives to bring the total hours to 126.

Major in Agricultural Economics (Including Rural Sociology)

The major and options in agricultural economics are to prepare students for employment in positions requiring economic decision-making in agriculture and related occupations, for effective rural group leadership, and for graduate work. The options make it possible for students to specialize within the diverse subject matter, yet each is flexible enough to allow considerable freedom in choosing elective courses. In declaring a major in agricultural economics, each student is required to choose one of the following options: farm management, agricultural marketing, general agricultural economics, or rural sociology. For common core requirements, see Agriculture Core Courses on page 130.

FARM MANAGEMENT OPTION	HOURS
Prescribed courses in agriculture[1]	
Ag. Ec. 100 — Introductory Agricultural Economics	3
Ag. Ec. 220 — Farm Management	3-4
Ag. Ec. 324 — Farm Operation	3
Ag. Ec. 325 — Advanced Farm Management	3
Agron. 101 — Introductory Soils	4
Additional agricultural economics courses	8
Elective courses in agriculture to bring total agriculture to a minimum of	40
Accy. 101 — Principles of Accounting, or Accy. 201 — Fundamentals of Accounting, or a course in statistics[2]	3-4
Humanities (see pages 128 to 129)	6
Social sciences: 9 hours from two departments (see page 128). Must include Econ. 101 — Introduction to Economics, and Econ. 300 — Intermediate Microeconomic Theory	9
Open electives to bring total hours to	126

[1] Strongly recommended course is An. S. or D.S. 221 — Animal Nutrition.
[2] To be chosen from Econ. 171 or 172, or Agron. 340, or Ag. Ec. 341, or Math. 161.

AGRICULTURAL MARKETING OPTION — **HOURS**

Prescribed courses in agriculture
- Ag. Ec. 100 — Introductory Agricultural Economics 3
- Ag. Ec. 230 — Marketing of Agricultural Products 3
- Six hours from the following:
  - Ag. Ec. 331 — Grain Marketing 3
  - Ag. Ec. 332 — Livestock Marketing 3
  - Ag. Ec. 334 — Marketing of Dairy Products 3
  - Ag. Ec. 335 — Economics of Food Distribution 3
  - Ag. Ec. 338 — Agribusiness Management 3
- Additional agricultural economics courses 8

Elective courses in agriculture to bring total agriculture to a minimum of 40
Humanities (see pages 128 to 129) 6
Social sciences: 9 hours from two departments (see page 128)
- Must include Econ. 101 — Introduction to Economics, and Econ. 300 — Intermediate Microeconomic Theory 9

Prescribed nonagriculture courses
- Accy. 101 — Principles of Accounting I, or Accy. 201 — Fundamentals of Accounting .. 3
- One course from speech communication, journalism, or business and technical writing .. 2-3
- A course in statistics to be chosen from Econ. 171 or 172, or Agron. 340, or Ag. Ec. 341, or Math. 161 3-4

Open electives to bring total hours to 126

GENERAL AGRICULTURAL ECONOMICS OPTION — **HOURS**

Prescribed courses in agriculture
- Ag. Ec. 100 — Introductory Agricultural Economics 3
- Nine hours from the following:
  - Ag. Ec. 220 — Farm Management 3-4
  - Ag. Ec. 230 — Marketing of Agricultural Products 3
  - Ag. Ec. 302 — Financing Agriculture 3
  - Ag. Ec. 303 — Agricultural Law 3
  - Ag. Ec. 305 — Agricultural Policies and Programs 3
  - Ag. Ec. 318 — Land Economics 3
  - Ag. Ec. 341 — Agricultural Economic Statistics 3
  - Additional agricultural economics courses 8

Elective courses in agriculture to bring total agriculture to a minimum of 40
Humanities (see pages 128 to 129) 6
Social sciences: 9 hours from two departments (see page 128). Must include Econ. 101 — Introduction to Economics, and Econ. 300 — Intermediate Microeconomic Theory 9
Accy. 101 — Principles of Accounting, or Accy. 201 — Fundamentals of Accounting, or a course in statistics[1] 3-4
Open electives to bring total hours to 126

[1] To be chosen from Econ. 171 or 172, or Agron. 340, or Ag. Ec. 341, or Math. 161.

RURAL SOCIOLOGY OPTION — **HOURS**

Prescribed courses in agriculture
- Ag. Ec. 100 — Introductory Agricultural Economics 3
- R. Soc. 277 — Rural Social Change 3
- Additional rural sociology or agricultural economics courses 14

Elective courses in agriculture to bring total agriculture to a minimum of 40
Humanities (see pages 128 to 129) 6
Social sciences: 9 hours from two departments (see page 128)
- Must include Econ. 101 — Introduction to Economics, and 2 approved 200- or 300-level sociology courses 9

Open electives to bring total hours to 126

Major in Agricultural Mechanization — Industrial Option

For students who are interested in emphasis in the areas of farm structures, conservation, farm power and farm machinery, in preparation for work with service organizations, retail dealers, power suppliers, contractors, or farm management companies.

For common core requirements see Agriculture Core Courses on page 130. Other courses required for this major are:

	HOURS
Prescribed courses in agriculture	
Ag. Ec. 220 — Farm Management	3-4
Ag. M. 100 — Engineering Applications in Agriculture	3
Ag. M. 299 — Agricultural Mechanization Seminar	1
Agron. 101 — Introductory Soils	4
Agron. 121 — Principles of Field Crop Science	4
Fifteen hours from the following:	
Ag. M. 200 — Agricultural Mechanics Shop: Construction Technology	3
Ag. M. 201 — Agricultural Mechanics Shop: Electrical and Metal Work	3
Ag. M. 221 — Farm Power and Machinery Management	4
Ag. M. 241 — Farm Tractor Power	3
Ag. M. 252 — Mechanics of Soil and Water Conservation	3
Ag. M. 272 — Farm Buildings	3
Ag. M. 281 — Farmstead Mechanization	3
Ag. M. 300 — Special Problems	1-4
Ag. M. 321 — Advanced Farm Machinery Management	4
Ag. M. 331 — Farm Machinery Technology	4
Ag. M. 361 — Development and Function of Family Housing	3
Ag. M. 381 — Electro-Mechanical Agricultural Systems	3
Elective courses in agriculture to bring total agriculture to a minimum of	40
Humanities (see pages 128 to 129)	6
Social sciences: A minimum of 9 hours from two departments (see page 128) including	
Econ. 101 — Introduction to Economics	9
Other prescribed courses	
Accy. 101	3
Math. 114 — Plane Trigonometry	2
Phycs. 101 — General Physics (Mechanics, Heat, and Sound)	5
Phycs. 102 — General Physics (Light, Electricity, and Magnetism) if Chem. 102 is not taken	5
Fifteen hours from the following:	
Ag. Ec. 338 — Agribusiness Management	3
B. Adm. 202 — Principles of Marketing	3
B. Adm. 210 — Management and Organizational Behavior	3
B. Adm. 212 — Principles of Retailing	3
B. Adm. 248 — Personnel Management, or B. Adm. 351 — Organizational Behavior	3
B. Adm. 249 — Human Relations, or B. Adm. 321 — Organizational Behavior	3
B. Adm. 261 — Summary of Business Law	3
A course in digital computer methods	3
B.&T.W. 251 — Business Writing	3
B.&T.W. 271 — Sales Writing	2
B.&T.W. 272 — Report Writing	2
Sp. Com. 211 — Business and Professional Speaking	2
A course in statistics	3
Open electives to bring total hours to	126

Major in Agricultural Mechanization (Equipment Operations Option)

This option is for students who desire to specialize in the problems of equipment and plant operations. Graduates would work as contractors, confinement livestock housing operators, processing plant operators, field foremen for corporation farms, or as farm operators.

For common core requirements of this major see page 130. Other courses required for this major are:

	HOURS
Prescribed courses in agriculture	
Ag. M. 100 — Engineering Applications in Agriculture	3
Ag. M. 221 — Farm Power and Machinery Management	4
Ag. M. 299 — Seminar	1
Ag. Ec. 220 — Farm Management	3-4
Agron. 101 — Introductory Soils	4
Agron. 121 — Principles of Field Crop Science	4
Twelve hours from the following agricultural mechanization courses:	
Ag. M. 200 — Agricultural Mechanization Shop: Construction Technology	3
Ag. M. 201 — Agricultural Mechanization Shop: Electrical and Metalwork	3
Ag. M. 241 — Farm Tractor Power	3
Ag. M. 252 — Mechanics of Soil and Water Conservation	3
Ag. M. 272 — Farm Buildings	3
Ag. M. 281 — Farmstead Mechanization	3
Ag. M. 300 — Special Problems	1-4
Ag. M. 321 — Advanced Farm Machinery Management	3
Ag. M. 331 — Farm Machinery Technology	4
Ag. M. 381 — Electro-Mechanical Agricultural Systems	3
Twelve hours from the following production and management courses:	
Ag. Ec. 203 — Farm Taxation	2
Ag. Ec. 230 — Marketing of Agricultural Products	3
Ag. Ec. 302 — Financing Agriculture	3
Ag. Ec. 303 — Agricultural Law	3
Ag. Ec. 324 — Farm Operation	3
Ag. Ec. 325 — Advanced Farm Management	3
Agron. 303 — Soil Fertility and Fertilizers	3
Agron. 322 — Forage Crops and Pastures	3
An. S. 201 — Livestock Management	5
An. S. 307 — Environmental Aspects of Animal Management	3
Hort. 242 — Vegetable Crop Production	3
Agriculture hours must total a minimum of	40
Humanities: An approved 6 hours in the humanities	6
Social sciences: A minimum of nine hours in the social sciences from two departments, including Econ. 101 (see page 128)	9
Other prescribed courses:	
Accy. 101 — Principles of Accounting I	3
Math. 114 — Plane Trigonometry (unless exempt by Mathematics Placement Test)	2
Phycs. 101 — General Physics (Mechanics, Heat, and Sound)	5
Phycs. 102 — General Physics (Light, Electricity, and Magnetism) if Chem. 102 or 103 is not taken	5
Open electives to bring total hours to	126

For a trial period of four years, up to 8 hours of free elective credit will be allowed for vocational skills courses taken at junior colleges in the subject matter areas of surveying, carpentry, welding, engine analysis and overhaul, power trains, hydraulics, and electro-mechanical systems. Students who lack these skills are advised to complete such courses at another institution, or to gain such skills through practical experience. Concurrent enrollment may be arranged at the discretion of the dean of the college.

Major in Agronomy

This major is designed for students who wish to specialize in crops, soils, agronomy, or crop protection. For those who may later desire to pursue graduate work, adequate training may be obtained by suitable choices of electives within the framework of this major or in the agricultural science curriculum. Numerous employment opportunities exist in various agricultural industries for students who wish to major in the agricultural industries curriculum with emphasis in agronomy and with an adviser in agronomy.

For common core requirements see Agriculture Core Courses on page 130. Other courses required for this major are:

	HOURS
Prescribed courses in agriculture	
Agron. 101 — Introductory Soils	4
Agron. 121 — Principles of Field Crop Science	4
Agron. 290 — Undergraduate Agronomy Seminar	1
Elective courses in agronomy[1,2,3]	18
Crops	
Agron. 110 — Plant and Animal Genetics	3
Agron. 319 — Environment and Plant Ecosystems	3
Agron. 320 — Crop Physiology	3
Agron. 322 — Forage Crops and Pastures	3
Agron. 323 — Principles of Plant Breeding	3
Agron. 326 — Weeds and Their Control	3
Agron. 350 — Crops and Man	3
Soils	
Agron. 301 — Soil Survey, with Emphasis on Illinois Soils	3
Agron. 303 — Soil Fertility	3
Agron. 304 — Soil Management and Conservation	3
Agron. 305 — Biochemical Processes in Soil and Water Environment	3
Agron. 306 — Dynamics of Soil Development	3
Agron. 307 — Soil Chemistry	3
Agron. 308 — Physics of the Plant Environment	4
Crop protection	
Agron. 110 — Plant and Animal Genetics, or Agron. 320 — Crop Physiology	3
Agron. 301 — Soil Survey with Emphasis on Illinois Soils, or Agron. 303 — Soil Fertility and Fertilizers	3
Agron. 326 — Weeds and Their Control	3
Hort. 100 — Introductory Horticulture	3
Hort. 242 — Vegetable Crop Production, or Hort. 262 — Fruit Science II	3
Pl. Po. 204 — Introductory Plant Pathology	3
Pl. Po. 305 — Plant Disease Development and Control, or Pl. Po. 377 — Diseases of Field Crops	3
Elective courses in agriculture to bring total agriculture to a minimum of	40
Humanities (see pages 128 to 129)	6
Social sciences: A minimum of 9 hours from two departments including Econ. 101 — Introduction to Economics	9
Other prescribed courses	
Geol. 101 — An Introduction to the Study of the Earth, or Geol. 107 — General Geology I (all options)	4
Crop protection only	
Chem. 131 — Elementary Organic Chemistry and Chem. 134 — Elementary Organic Chemistry Laboratory	5
Entom. 101 — Agricultural Entomology	3
Entom. 319 — Fundamentals of Insect Control	4
Speech, journalism, or business and technical writing course	2-3
Open electives to bring total hours to	126

[1] Crops option requires 12 hours from agronomy-crops and 6 hours from agronomy-soils.

[2] Soils option requires 12 hours from agronomy-soils and 6 hours from agronomy-crops.

[3] Agronomy option requires 18 hours of agronomy, with a minimum of 6 hours each from crops and soils.

Major in Animal Science

The general animal science option is for students interested in preparing for work in the fields of animal feeding and nutrition, animal breeding and genetics, animal production, or related fields of the livestock and poultry industry. The companion

animal biology option is for students who are primarily interested in activities associated with the companion animal industry or in gaining a basic knowledge of biological management and training of animals used in recreational activities. For common core requirements see Agriculture Core Courses on page 130.

GENERAL ANIMAL SCIENCE OPTION — **HOURS**

Prescribed courses in agriculture
- An. S. 100 — Introduction to Animal Science 3
- An. S. 110 — Plant and Animal Genetics 3
- An. S. 202 — Domestic Animal Physiology[1] 4
- An. S. 209 — Meat Animal Evaluation, or An. S. 309 — Meat Science II 3-4
- An. S. 221 — Animal Nutrition 4
- Two of the following:
  - An. S. 301 — Beef Production 3
  - An. S. 302 — Sheep Production 3-4
  - An. S. 303 — Pork Production 3
  - An. S. 304 — Poultry Management 3-4
- Two of the following:
  - Agron. 101 — Introductory Soils 4
  - An. S. 230 — Comparative Physiology of Reproduction, Lactation, and Growth 3
  - An. S. 305 — Genetics and Animal Improvement 3
  - An. S. 307 — Environmental Aspects of Animal Management 3
  - An. S. 320 — Nutrition and Digestive Physiology of Ruminants 3
  - An. S. 330 — Reproduction and Artificial Insemination of Farm Animals 3
  - An. S. 332 — Livestock Marketing 3

Elective courses in agriculture to bring total agriculture to a minimum of 40
Humanities (see pages 128 to 129) 6
Social sciences: A minimum of 9 hours from two departments including Econ. 101 — Introduction to Economics (see page 128) 9
Mcbio. 100 — Introductory Microbiology and Mcbio. 101 — Introductory Experimental Microbiology, or Mcbio. 200 — Microbiology and Mcbio. 201 — Experimental Microbiology 5
Open electives to bring total hours to 126

COMPANION ANIMAL BIOLOGY OPTION — **HOURS**

Prescribed courses in agriculture
- An. S. 100 — Introduction to Animal Science 3
- An. S. 110 — Plant and Animal Genetics 3
- An. S. 202 — Domestic Animal Physiology[1] 4
- An. S. 206 — Light Horse Management 3
- An. S. 207 — Companion Animal Management 3
- An. S. 221 — Animal Nutrition 4
- An. S. 230 — Comparative Physiology of Reproduction, Lactation, and Growth 3
- An. S. 299 — Seminar 1
- An. S. 307 — Environmental Aspects of Animal Management 3
- An. S. 346 — Ethology 3

Elective courses in agriculture to bring total agriculture to a minimum of 40
Humanities: An approved 6 hours in the humanities (see pages 128 to 129) 6
Social sciences: A minimum of 9 hours from two departments in the social sciences, including Econ. 101 (see page 128) 9
Accy. 101 — Principles of Accounting I or Accy. 201 — Fundamentals of Accounting 3
Mcbio. 100 — Introductory Microbiology and Mcbio. 101 — Introductory Experimental Microbiology, or Mcbio. 200 — Microbiology, and Mcbio. 201 — Experimental Microbiology 5-8
Chem. 131 — Elementary Organic Chemistry 3
Open electives to bring total hours to 126

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[1] V.P.P. 202 or Physl. 103 may be substituted for An. S. 202 but cannot be counted toward the required 40 hours of agriculture course work.

Major in Dairy Science

The purpose of the major in dairy science is to provide training for students planning careers as dairy farm operators and managers, as fieldmen for milk plants, breed associations, feed companies, and governmental agencies, as control technicians or salesmen for feed manufacturers, as laboratory and field technicians in artificial insemination, and as breeding consultants.

In addition, this major provides a foundation for advanced study in preparation for careers as college teachers, research scientists in experiment stations and industry, and as extension specialists.

For common core requirements see Agriculture Core Courses on page 130. Other courses required for this major are:

Prescribed courses in agriculture	HOURS
Twenty hours from the following:	
Ag. Ec. 220 — Farm Management	3
D.S. 110 — Plant and Animal Genetics	3
D.S. 204 — Dairy Cattle Evaluation	3
D.S. 205 — Dairy Cattle Management	3
D.S. 221 — Animal Nutrition	4
D.S. 230 — Comparative Physiology of Reproduction, Lactation, and Growth	3
D.S. 305 — Genetics and Animal Improvement	3
D.S. 308 — Physiology of Lactation	4
D.S. 320 — Nutrition and Digestive Physiology of Ruminants	3
D.S. 330 — Reproduction and Artificial Insemination of Farm Animals	3
D.S. 334 — Marketing Dairy Products	3
F.S. 101 — Food in Modern Society	3
Elective courses in agriculture at the 200 and 300 level	10
Elective courses in agriculture to bring total agriculture to a minimum of	40
Humanities and social sciences: An approved 6 hours in the humanities and a minimum of 9 hours from two departments in the social sciences including Econ. 101 — Introduction to Economics (see pages 128 and 129)	15
Speech communication, journalism, or business and technical writing elective	2-3
Minimum of 9 hours from the following:	
Accy. 201 — Fundamentals of Accounting	3
Chemistry, beyond Chem. 101, 102, and 103	
Entomology	
Geology	
Mathematics, beyond minimum mathematics requirements	
Microbiology, beyond minimum biological science requirements	
Physics	
Physl. 103 — Introduction to Human Physiology, or any 200 or 300 level physiology course	4
V.P.P. 202 — Physiology of Domestic Animals	3
Zool. 232 — Comparative Vertebrate Anatomy, or any 200 or 300 level zoology course	5
Open electives to bring total hours to	126

Major in General Agriculture

For students who are interested in a broad basic training in agriculture, rather than in specialization within a departmental field of work. Areas for which such training is suited include farming, agricultural extension, agricultural services, pretheological study, and others.

Students should refer to *A Handbook for Agriculture Students and Advisers* for suggested courses and programs of study for training in these areas within this major.

For common core requirements see Agriculture Core Courses on page 130. Other courses required for this major are:

	HOURS
Prescribed courses in agriculture	
Agron. 101 — Introductory Soils	4
In addition to core courses in agriculture, at least 3 hours of credit in each of the following departments: Agricultural Economics, Agricultural Engineering (Agricultural Mechanization), Agronomy (in addition to Agron. 101), Animal Science, Dairy Science, Horticulture	18
Elective courses in agriculture to bring total agriculture to a minimum of	50
Humanities (see pages 128 to 129)	6
Social sciences: A minimum of 9 hours from two departments including Econ. 108 — Elements of Economics (see page 128)	9
Open electives to bring total hours to	126

Major in Horticulture

For students who are interested primarily in general agriculture but desire a basic knowledge of horticulture. Emphasis is placed on the basic plant sciences to give a general background for the specialized phases of horticulture. By a careful choice of horticulture courses and electives, a student may prepare for the production of fruits, vegetables, or other specialized horticultural crops.

Students who are interested in the production of flowers and ornamentals should enroll in the ornamental horticulture curriculum.

For common core requirements see Agriculture Core Courses on page 130. Other courses required for this major are:

	HOURS
Prescribed courses in agriculture	
Agron. 101 — Introductory Soils	4
Entom. 101 — Agricultural Entomology	3
Hort. 100 — Introductory Horticulture	3
Hort. 110 — Plant and Animal Genetics	3
Hort. 221 — Plant Propagation	3
Pl. Pa. 204 — Introductory Plant Pathology	3
Additional horticulture courses	11
Elective courses in agriculture to bring total agriculture to a minimum of	40
Humanities (see pages 128 to 129)	6
Social sciences: A minimum of 9 hours from two departments including Econ. 101 — Introduction to Economics (see page 128)	9
Other prescribed courses:	
Bot. 330 — Plant Physiology	3
Bot. 333 — Plant Physiology Laboratory	3
Open electives to bring total hours to	126

CURRICULUM IN AGRICULTURAL COMMUNICATIONS

For the degree of Bachelor of Science in Agriculture

This curriculum is designed for students who wish to pursue careers in the combined fields of agriculture and communications. It seeks to prepare them for work in such careers as agricultural advertising, public relations, farm radio and television broadcasting, photography, and agricultural publications writing or editing. The College of Agriculture and the College of Communications offer this curriculum as a joint project. It allows the planning of study programs closely suited to the student's interests in one of three communications options: advertising, news-editorial, or radio-television.

Upon completion of the curriculum requirements and a minimum of 126 hours of credit the student is awarded the degree of Bachelor of Science in Agriculture.

FIRST YEAR — FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society[1]	1
Agriculture core caurse	3
Bat. 100 — General Batany, ar Zool. 104 — Elementary Zoology	4
Math. 111 — Algebra, or Math. 112 — College Algebra[2]	3-5
Rhet. 105 or 108 — Composition[3]	4
Tatal	15-17

SECOND SEMESTER	HOURS
Agriculture care course	3-4
Chem. 101 — General Chemistry[4]	4
Sp. Cam. 101 — Principles of Effective Speaking[3]	3
Zaol. 104 — Elementary Zoalagy, or Bat. 100 — General Botany	4
Elective	2-3
Total	16

SECOND YEAR

Agriculture care course	3-4
Agriculture elective[5] or Ag. Com. 114 — Agricultural Cammunicatians Media and Methads	3
Econ. 101	4
Physical science course[6]	3-4
Social science course[7]	3
Elective	2-3
Total	18-20

Agriculture elective[5]	3
Ag. Cam. 114 — Agricultural Cammunicatians Media and Methads, or agriculture elective	3
Humanities caurse[8]	3
Sacial science course[7]	3
Elective	3
Total	15-16

THIRD YEAR

Agriculture electives[5]	6
Communicatians course[9]	3
Humanities course[8]	3
Open elective	3
Social science elective	3-4
Tatal	18-19

Agriculture elective	3
Ag. Cam. 214 — Agricultural Cammunicatians Strategy	3
Cammunicatians caurse(s)	4-6
Humanities elective	3
Sacial science elective	3-4
Tatal	16-19

FOURTH YEAR

Agriculture elective	3
Communicatians caurses	6
Open electives	6
Social science elective	3
Total	18

Agriculture elective	3
Cammunicatians caurses	6
Open electives	6
Sacial science elective	3
Total	18

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[1] An orientatian course required of all freshmen in agriculture.

[2] A student in this curriculum is required ta camplete either Math. 111 — Algebra, 5 haurs; ar Math. 112 — College Algebra, 3 hours; ar pass the placement examination in mathematics.

[3] Sp. Cam. 111 and 112 — Verbal Communication, both 3-hour caurses, may be substituted for Rhet. 105 or 108, and Sp. Com. 101.

[4] To take Chem. 101, a student must have a satisfactory score an the Chemistry Placement Test, ar take Chem. 100 and have Math. 111 ar 112 or the equivalent before enralling in Chem. 101.

[5] A minimum af 35 haurs of agriculture caurses required, including 15 hours at the 200 and 300 level.

[6] A minimum af 3 haurs required fram chemistry (beyond 101), mathematics (beyond algebra), geology, ar physics.

[7] A minimum of 20 hours required, including Econ. 101. (See page 128.)

[8] A minimum af 9 hours required. (See pages 128 to 129.)

[9] A minimum af 20 hours af College af Cammunicatians courses required, including those prescribed for the student's selected aptian (listed on page 140).

Agriculture Core Courses

In addition to Agr. 100, one course from three of the four areas listed on page 130 must be taken each semester by students in this curriculum.

Prescribed Courses in Communications

A student will complete one of the following options (minimum of 20 hours).

ADVERTISING OPTION

Adv. 281 — Introduction to Advertising
Adv. 382 — Advertising Creative Strategy and Tactics
Adv. 383 — Advertising Media Strategy and Tactics
Adv. 392 — Advertising Management: Strategy and Tactics
Electives in communications to complete the 20-hour requirement.

NEWS-EDITORIAL OPTION

Journ. 204 — Typography
Journ. 211 — Newswriting
Journ. 321 — Editing
One course from the following:
- Journ. 217 — History of Communications
- Journ. 218 — Communications and Public Opinion
- Journ. 220 — Processes and Systems of Communications
- Journ. 231 — Mass Communication in a Democratic Society
- Journ. 241 — Law and Communications
- Journ. 251 — Social Aspects of Mass Communications

One course from the following:
- Journ. 212 — Reporting
- Journ. 326 — Magazine Article Writing
- Journ. 330 — Magazine Editing
- R. TV 355 — Television News

Electives in communications to complete the 20-hour requirement.

RADIO-TELEVISION OPTION

Journ. 211 — Newswriting
R. TV 252 — Television Laboratory
R. TV 261 — Principles of Radio and Television Broadcasting
Electives in communications to complete the 20-hour requirement, including at least 6 hours of radio-TV courses in addition to 252 and 261.

CURRICULUM IN AGRICULTURAL ENGINEERING

For the degree of Bachelor of Science in Agricultural Engineering

This curriculum, outlined on page 223, is administered in the College of Engineering. Requirements for the first year are the same as in other engineering curricula. Courses in agriculture and agricultural engineering begin in the second year. In the senior year the student chooses technical electives for specialization in one of the following: processing, structures and environment, power and machinery, or soil and water.

For the degrees of Bachelor of Science in Agricultural Engineering, and of Bachelor of Science in Agriculture

Students may obtain bachelor's degrees in both agricultural engineering and agriculture in five years by choosing the curriculum in agricultural science, option 3, on page 148. Students following the five-year program should enroll in the College of Agriculture for their first three or four years of work and then transfer to the College of Engineering for the last one or two years.

CURRICULUM IN AGRICULTURAL INDUSTRIES

For the degree of Bachelor of Science in Agriculture

This curriculum provides a broad selection of courses in agricultural sciences, natural sciences, economics and other social sciences, business administration, finance,

communications, and the humanities. It is designed to prepare students for careers in those industries and businesses which service or are related to agriculture. A minimum of 27 hours of commerce and business courses is required.

During the first two years, this curriculum closely parallels the requirements of the core curriculum in agriculture. Students desiring to transfer from one to the other during the first two years may do so with little difficulty. Examples of specific opportunities for employment are:

Farm Supplies. Marketing of feed, seed, fertilizer, machinery, equipment, and other supplies to farmers.

Agricultural Commodities. Marketing of agricultural commodities in local, intermediate, and central markets.

Food and Food Products. Distribution of food and food products in wholesale and retail markets, including institutional users.

Agricultural Real Estate and Finance. Services related to the appraisal, financing, ownership, and transfer of agricultural property.

An adviser assists each student in planning a specific program. Upon completion of the curriculum requirements and a minimum of 126 hours of credit, the student is awarded the degree of Bachelor of Science in Agriculture.

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society[1]	1
Agriculture core course	3-4
Moth. 111 — Algebra, or Moth. 112 — College Algebra[2]	3-5
Natural science course	3-5
Rhet. 105 or 108 — Composition[3]	4
Total	15-17

SECOND SEMESTER	HOURS
Agriculture core course	3-4
Chem. 101 — General Chemistry[4]	4
Moth. 114 — Plane Trigonometry, or Math. 124 — Introductory Analysis for Social Scientists I[2]	2-3
Natural science course	3-5
Sp. Com. 101 — Principles of Effective Speaking[3]	3
Total	16-18

SECOND YEAR

Agriculture core course	3-4
Business course[5]	3
Humanities course	3
Natural science course	3-5
Social science or humanities course[6]	3
Total	16-18

Agriculture elective	3
Business courses	6
Journalism, business and technical writing, speech communication, or elective[7]	2-3
Social science or humanities courses[6]	3-6
Total	15-18

[1] An orientation course required of all freshmen in agriculture.

[2] Students without college credit in algebra are required to take the Mathematics Placement Test. Those who, on the basis of this test, qualify for exemption from algebra, need not take Math. 111 or 112. Those who qualify for exemption from trigonometry, or who wish to take Math. 124, need not take Math. 114. The recommended mathematics sequence beyond algebra is Math. 124 and 134. These two courses, or their equivalent, are prerequisite courses for Econ. 171 and 172, and for B. Adm. 202. The alternate mathematics sequence is Math. 114, or exemption by the placement test, and Math. 120 — Calculus and Analytic Geometry, or a course in analytic geometry.

[3] Sp. Com. 111 and 112 — Verbal Communication, 3 hours each, may be substituted for Rhet. 105 or 108, and Sp. Com. 101.

[4] Students who have not had high school chemistry and those who do not earn a satisfactory score on the Chemistry Placement Test must take Chem. 100 and have Math. 111 or 112 or the equivalent before enrolling in Chem. 101.

[5] Econ. 101 is recommended from this group for the sophomore year.

[6] See approved humanities and social science courses on pages 128 and 129.

[7] One course in business and technical writing, journalism, or speech communication is required in addition to Rhet. 105 or 108, and Sp. Com. 101; or Sp. Com. 111 and 112.

THIRD AND FOURTH YEARS

The general requirements, in addition to the courses listed for the first two years, include completion of: (1) A minimum of 27 hours of business courses from those listed. (2) Agriculture electives to bring total agriculture to 35 hours. (3) An approved 6 hours in the humanities. (See pages 128 to 129.) (4) A minimum of 9 hours of approved social science courses, other than economics. (See page 128.) (5) Sufficient open electives to bring the total hours to 126.

Agriculture Core Courses

In addition to Agr. 100, one course from three of the four areas listed on page 130 must be completed by each student in this curriculum.

Natural Science Courses Group

In addition to the chemistry and mathematics courses listed for the first two years, each student must complete *three courses* from the following:

	HOURS
Bot. 100 — General Botany, or Mcbio. 100 — Introductory Microbiology	3-4
Chem. 102 — General Chemistry, or Chem. 103 — General Chemistry. Organic Chemical Studies	4
Geol. 101 — An Introduction to the Study of the Earth, or Geol. 107 — General Geology I	4
Math. 120 — Calculus and Analytic Geometry, or Math. 134 — Introductory Analysis for Social Scientists, or analytic geometry	4-5
Zool. 104 — Elementary Zoology, or Physl. 103 — Introduction to Human Physiology	4

Business Courses Group

Each student in this curriculum must take a minimum of 27 hours from the following:

	HOURS
Econ. 101 — Introduction to Economics	4
Econ. 300 — Intermediate Microeconomic Theory	3
One or more courses from each of the following:	
Fin. 150 — Money, Credit, and Banking, or Fin. 254 — An Introduction to Business Financial Management, or Fin. 257 — Corporation Finance, or Ag. Ec. 302 — Financing Agriculture	3
B. Adm. 247 — Introduction to Management, or B. Adm. 210 — Production Management and Organization	3
B. Adm. 202 — Principles of Marketing, or B. Adm. 272 — Industrial Selling, or Ag. Ec. 230 — Marketing of Agricultural Products, or Ag. Ec. 338 — Agribusiness Management	3
Two courses from:	
Accy. 101 — Principles of Accounting I, or Accy. 201 — Fundamentals of Accounting	3
Computer science	3
Statistics[1]	3-4
Two courses elected from: accountancy, advertising, business administration, economics, or finance	6

[1] To be chosen from Econ. 171 or 172, or Agron. 340, or Ag. Ec. 341, or Math. 161. If either Agron. 340 or Ag. Ec. 341 is used to satisfy this requirement, credit may not also be counted toward agriculture hours.

Suggested Elective Courses in Agriculture

The following list of agriculture courses is intended as a guide from which electives in the various interest fields may be chosen. Other courses may be selected with approval of the adviser. A minimum of 26 hours is required.

AGRICULTURAL COMMODITIES	HOURS
Ag. Ec. 230 — Marketing of Agricultural Products	3
Ag. Ec. 331 — Grain Marketing	3
Ag. Ec. 332 — Livestock Marketing	3
Ag. Ec. 334 — Marketing of Dairy Products	3
Ag. Ec. 335 — Economics of Food Distribution	3
Ag. Ec. 338 — Agribusiness Management	3
Ag. Ec. 340 — Commodity Futures Markets and Trading	3
Ag. Ec. 342 — Agricultural Prices	3
Agron. 319 — Environmental and Plant Ecosystems	3
An. S. 109 — Meat Purchasing and Preparation	2
An. S. 209 — Meat Animal Evaluation	3-4
An. S. 221 — Animal Nutrition	4
An. S. 301 — Beef Production	3
An. S. 302 — Sheep Production	3-4
An. S. 303 — Pork Production	3
An. S. 304 — Poultry Management	3-4
D.S. 320 — Nutrition and Digestive Physiology of Ruminants	3
F.S. 101 — Food in Modern Society	3

AGRICULTURAL REAL ESTATE AND FINANCE	HOURS
Ag. Ec. 220 — Farm Management	3-4
Ag. Ec. 302 — Financing Agriculture	3
Ag. Ec. 303 — Agricultural Law	3
Ag. Ec. 312 — Farm Appraisal	5
Ag. Ec. 342 — Agricultural Prices	3
Ag. M. 252 — Mechanics of Soil and Water Conservation	3
Ag. M. 272 — Farm Buildings	3
Agran. 101 — Introductory Soils	4
Agron. 301 — Soil Survey, with Emphasis on Illinois Soils	3

FARM SUPPLIES	HOURS
Ag. Ec. 220 — Farm Management	3-4
Ag. Ec. 338 — Agribusiness Management	3
Ag. Ec. 342 — Agricultural Prices	3
Ag. M. 221 — Farm Power and Machinery Management	4
Ag. M. 272 — Farm Buildings	3
Ag. M. 281 — Farmstead Mechanization	3
Agron. 303 — Soil Fertility	3
Agron. 304 — Soil Management and Conservation	3
Agron. 322 — Forage Crops and Pastures	3
Agron. 323 — Principles of Plant Breeding	3
Agron. 326 — Weeds and Their Control	3
An. S. 221 — Animal Nutrition	4
An. S. 301 — Beef Production	3
An. S. 302 — Sheep Production	3-4
An. S. 303 — Pork Production	3
An. S. 304 — Poultry Management	3-4
D.S. 305 — Genetics and Animal Improvement	3
D.S. 320 — Nutrition and Digestive Physiology of Ruminants	3
Entam. 101 — Agricultural Entomology	3
Pl. Pa. 204 — Introductory Plant Pathology	3

FOOD AND FOOD PRODUCTS	HOURS
Ag. Ec. 230 — Marketing of Agricultural Products	3
Ag. Ec. 335 — Economics of Food Distribution	3
Ag. Ec. 342 — Agricultural Prices	3
An. S. 109 — Meat Purchasing and Preparation	2
F.S. 101 — Food in Modern Society	3
F.S. 202 — Sensory Evaluation of Foods	3
F.S. 260 — Raw Materials for Processing	4
F.S. 332 — Principles of Sanitation in the Processing and Handling of Foods	2
H. Ec. 120 — Elementary Nutrition	2
Hort. 242 — Vegetable Crops Production	3

CURRICULUM IN AGRICULTURAL OCCUPATIONS FOR SECONDARY TEACHERS

For the degree of Bachelor of Science in Agriculture

The purpose of this curriculum is to prepare students to teach agriculture in schools offering agricultural occupations courses. A minimum of 126 hours of credit is required for graduation. For teacher education requirements applicable to all curricula see page 117.

General Education Requirements

COMMUNICATIONS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 or 108, and Sp. Com. 101	6-7
NATURAL SCIENCES	
College algebra, or exemption by placement test	3-5
General botany	4
General chemistry including organic	8
Physical geology	4
Elementary zoology	4
Total	23-25
HUMANITIES	
Approved courses	6
SOCIAL SCIENCES	
Econ. 101 — Introduction to Economics	4
General psychology	3
Electives	6-8
For students interested in secondary education certification, these electives must be selected to fulfill certification requirements in political science and U.S. history. The course in political science must include instruction on the constitutions of Illinois and the United States.	
Total	12-14
HEALTH AND/OR PHYSICAL EDUCATION	3

Professional Education Courses

	HOURS
Ed. Psy. 211 — Educational Psychology	3
E.P.S. 201 — Foundations of American Education	3
Vo. Tec. 101 — Nature of the Teaching Profession	2
Vo. Tec. 240 — Principles of Vocational and Technical Education	2
Vo. Tec. 276 — Student Teaching in Vocational Agriculture	5
Vo. Tec. 277 — Programs and Procedures in Agricultural Education	5
Total	20

Prescribed Courses in Agriculture

CORE COURSES	HOURS
Agr. 100 — Agriculture in Modern Society	1
Ag. Ec. 100 — Introductory Agricultural Economics	3
Ag. M. 100 — Engineering Applications in Agriculture, or Ag. M. 200 — Agricultural Mechanics Shop: Construction Technology	3
Agron. 101 — Introductory Soils	4
Total	11
OTHER COURSES IN AGRICULTURE	
Each student must select one of the options. The prescribed agriculture courses and elective agriculture courses must total 48 hours, including the 11 hours listed above, and must include a minimum of 20 hours of 200- and 300-level courses	37

Approved Options and Suggested Supporting Courses

The following list is intended as a guide for students and advisers as appropriate courses for the various options (areas of concentration).

AGRICULTURAL PRODUCTION OPTION	HOURS
Ag. Ec. 220 — Farm Management	3-4
Ag. Ec. 230 — Marketing of Agricultural Products, or agricultural economic elective — 300-level course	3
Ag. M. 201 — Agricultural Mechanics Shop: Electrical and Metalwork	3
Ag. M. 221 — Farm Power and Machinery Management	3-4
Agron. 121 — Principles of Field Crop Science	4
An. S. or D.S. 221 — Animal Nutrition	4
Animal science or dairy science elective	3

AGRICULTURAL SUPPLY OPTION	HOURS
Agr. 114 — Agricultural Journalism	3
Ag. Ec. 220 — Farm Management	3-4
Ag. Ec. 338 — Agribusiness Management	3
Ag. M. 221 — Farm Power and Machinery Management, or Ag. M. 252 — Mechanics of Soil and Water Conservation, or Ag. M. 272 — Farm Buildings, or Ag. M. 281 — Farmstead Mechanization	3-4
Agron. 121 — Principles of Field Crop Science	4
An. S. or D.S. 221 — Animal Nutrition	4
Accy. 201 — Fundamentals of Accounting	3

AGRICULTURAL MECHANIZATION OPTION	HOURS
Ag. M. 200 — Agricultural Mechanics Shop: Construction Technology	3
Ag. M. 201 — Agricultural Mechanics Shop: Electrical and Metalwork	3
Ag. M. 221 — Farm Power and Machinery Management	4
Ag. M. 241 — Farm Tractor Power	3
Ag. M. 331 — Farm Machinery Technology, or Ag. M. 252 — Mechanics of Soil and Water Conservation, or Ag. M. 272 — Farm Buildings	3

AGRICULTURAL PRODUCTS (PLANTS) OPTION	HOURS
Ag. Ec. 230 — Marketing of Agricultural Products	3
Ag. Ec. 331 — Grain Marketing	3
Ag. Ec. 335 — Economics of Food Distribution	3
Ag. M. 281 — Farmstead Mechanization	3
Agron. 121 — Principles of Field Crop Science	4
Agron. 326 — Weeds and Their Control	3
Pl. Po. 204 — Introductory Plant Pathology	3

AGRICULTURAL PRODUCTS (ANIMALS) OPTION	HOURS
Ag. Ec. 230 — Marketing of Agricultural Products	3
Ag. Ec. 332 — Livestock Marketing, or Ag. Ec. 334 — Marketing of Dairy Products, or Ag. Ec. 335 — Economics of Food Distribution	3
An. S. 109 — Meat Purchasing and Preparation, or An. S. 209 — Meat Animal Evaluation	2-3
F.S. 101 — Food in Modern Society	3
Mcbio. 100 — Introductory Microbiology, or Mcbio. 200 — Microbiology	3

ORNAMENTAL HORTICULTURE OPTION	HOURS
Entom. 101 — Agricultural Entomology	3
Hort. 100 — Introductory Horticulture, or Hort. 242 — Vegetable Crops Production, and Hort. 262 — Fruit Science I	3-6
Hort. 122 — Greenhouse Management	3
Pl. Po. 204 — Introductory Plant Pathology	3

AGRICULTURAL RESOURCES AND FORESTRY OPTION	HOURS
Agron. 304 — Soil Management and Conservation	3
Entom. 101 — Agricultural Entomology	3
For. 100 — Farm Forestry	3
For. 220 — Dendrology	4
R. Soc. 270 — Population and Human Ecology, or R. Soc. 277 — Rural Social Change	3
For. 253 — Forest Economics, or For. 260 — Forest Land Policy and Administration, or For. 319 — Environment and Plant Ecosystems	3

CURRICULUM IN AGRICULTURAL SCIENCE

For the degree of Bachelor of Science in Agriculture

This curriculum is especially designed for students who plan to do graduate study in agricultural fields or for those who wish to engage in professional work requiring more science, mathematics, or engineering than is included in the core curriculum in agriculture. To be eligible for admission to the curriculum, students entering as freshmen must meet the minimum selection index as determined by high school rank and test scores. Students entering as transfers must have a scholastic grade-point average in their collegiate work of not less than 3.5 in terms of the grading system of the University of Illinois (A=5.0). Once enrolled, they must maintain at least an average of 3.5 to remain in and graduate from the curriculum. A minimum of 126 hours of credit is required for graduation.

Options 1 and 2 provide an opportunity for planning individual programs of study under the supervision of a faculty adviser qualified in the student's special field of interest. Option 3 includes many prescribed courses both in agriculture and in engineering. Careful scheduling of courses is necessary.

Option 1. For students desiring preparation for graduate study or professional work in animal, plant, or soil science.

Option 2. For students desiring preparation for graduate study or professional work in the fields included in agricultural economics, agricultural law, and rural sociology.

Option 3. For students enrolled in the five-year combined agricultural science and agricultural engineering program. All requirements of the combined curriculum as outlined on the following pages must be completed to satisfy requirements for a degree in agriculture.

Summary	OPTIONS 1 AND 3 MINIMUM HOURS	OPTION 2 MINIMUM HOURS
General University requirements (rhetoric)	4	4
Group I: College of Agriculture courses (15 of the 30 hours must be at the 200 and 300 level) In option 3, a maximum of 15 hours of agricultural engineering and agricultural mechanization courses may be credited toward the degree in agriculture.	30	30
Group II: Humanities (for approved sequences, see pages 128 to 129)	6	6
Group III: Social sciences (for approved sequences and electives, see page 128) In option 2, at least 8 hours in economics must be included.	9	16
Group IV: Biological science (botany, entomology, microbiology, physiology, zoology) In options 1 and 3, a total of 45 hours in groups IV and V, with a minimum of 10 hours in each must be completed.	10	6
Group V: Physical science (biochemistry, chemistry, geology, mathematics, physics) In options 1 and 3, a total of 45 hours in groups IV and V, with a minimum of 10 hours in each, must be completed. In option 3, T.A.M. 150 and 211 may be counted toward group V.	10	16
Electives (unrestricted)	32	48
Total required for graduation	126	126

Option 1. Sample Program[1]

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Agriculture elective	3-4
Chem. 101 — Generol Chemistry[2]	4
Math. 111 — Algebro, or Moth. 112 — College Algebra[3]	3-5
Moth. 114 — Plone Trigonometry[3]	2
Rhet. 105 or 108 — Composition	4
Totol	15-17

SECOND SEMESTER	HOURS
Agriculture elective	3-4
Bot. 100 — General Botony, or Zool. 104 — Elementory Zoology	4
Chem. 102 — Generol Chemistry	4
Sp. Com. 101 — Principles of Effective Speaking	3
Elective	2-3
Totol	16-17

[1] Must include one course in agriculture each semester in oddition to Agr. 100.

[2] Chem. 101 has the prerequisite of o sotisfoctory score on the Chemistry Plocement Test and Math. 111 or 112, or exemption therefrom. Students not exempt from Math. 111 or 112 should deloy Chem. 101 until the second semester.

[3] Students who goin exemption from algebro ond trigonometry may omit beginning courses in mothemotics and enroll in more odvonced courses.

SECOND, THIRD, AND FOURTH YEARS

The progroms for the second, third, ond fourth yeors of option 1 must be plonned in consultotion with the student's foculty odviser. No student moy enter the ogriculturol science curriculum for the first time ofter the beginning of his senior yeor in college except by petition approved by the assaciote deon of the college.

Option 2. Sample Program[1]

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Ag. Ec. 100 — Introductory Agricultural Economics	3
Moth. 111 — Algebra, or Moth. 112 — College Algebra, or odvonced mothematics[2]	2-5
Rhet. 105 or 108 — Composition	4
Electives	3-6
Totol	15-17

SECOND SEMESTER	HOURS
Agriculture electives	3-6
Bot. 100 — General Botany, or Zool. 104 — Elementory Zoology	4
Moth. 114 — Plone Trigonometry,[2] or Moth. 124 — Introductory Anolysis for Sociol Scientists, or Chem. 101 — Generol Chemistry	2-4
Sp. Com. 101 — Principles of Effective Speoking	3
Total	16-17

[1] Must include one course in agriculture eoch semester in oddition to Agr. 100.

[2] Students who goin exemption from algebro ond trigonometry may omit beginning courses in mathematics ond enroll in more odvanced courses.

SECOND, THIRD, AND FOURTH YEARS

The progroms for the second, third, ond fourth yeors of option 2 must be plonned in consultotion with the student's faculty odviser. No student may enter the agricultural science curriculum for the first time ofter the beginning of his senior yeor in college except by petition approved by the ossociate dean af the college.

Program in Agriculture and Law

The University of Illinois College of Law requires a bachelor's degree as a prerequisite for admission. The agriculture and law program, therefore, will normally require seven years — four years leading to the B.S. degree in agriculture plus three years in the College of Law leading to the J.D. degree.

The student who is interested in this program may complete the requirements for a degree in any of the approved curricula of the college, but it is advisable that the student follow option 2 of the agricultural science curriculum. Students interested in this program should ask to be assigned to an agriculture prelaw adviser.

Requirements for admission to the College of Law are as follows: (1) A degree from an accredited university or college. (2) A minimum 3.5 (A=5.0) all-University grade-point average. (3) A satisfactory score on the Law School Admission Test.

Option 3. Five-Year Combined Program in Agricultural Science and Agricultural Engineering for the Degrees of Bachelor of Science in Agriculture and Bachelor of Science in Agricultural Engineering

Students enroll in the College of Agriculture for the first three years and may transfer to the College of Engineering in the fourth year but must be enrolled in the College of Engineering for the fifth year.

FIRST YEAR — FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society, or Eng. 100 — Engineering Lecture	0-1	Bot. 100 — General Botany	4
Chem. 101 — General Chemistry[1]	4	Chem. 102 — General Chemistry	4
Math. 111 — Algebra, or Math. 112 — College Algebra[2]	3-5	G.E. 103 — Engineering Graphics I	3
Math. 114 — Plane Trigonometry[2]	2	Math. 120 — Calculus and Analytic Geometry	5
Rhet. 105 or 108 — Composition	4	Total	16
Elective	0-3		
Total	16-18		

SECOND YEAR			
Ag. E. 126 — Engineering in Agriculture I	3	Ag. E. 127 — Engineering in Agriculture II	3
Agron. 121 — Principles of Field Crop Science	4	C.S. 101 — Introduction to Automatic Digital Computing	3
Math. 130 — Calculus and Analytic Geometry	5	Math. 140 — Calculus and Analytic Geometry	3
Phycs. 106 — General Physics (Mechanics)	4	Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
Total	16	Elective[3]	3
		Total	16

THIRD YEAR			
Agricultural engineering technical elective I	3	Agricultural engineering technical elective I	3
Econ. 101 — Introduction to Economics	4	Agron. 101 — Introductory Soils	4
Geol. 105 — Agricultural Geology, or Geol. 250 — Geology for Engineers	3-4	T.A.M. 211 — Analytical Mechanics (Dynamics)	3
Math. 345 — Differential Equations and Orthogonal Functions	3	T.A.M. 221 — Elementary Mechanics of Deformable Bodies	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, Modern Physics)	4	T.A.M. 223 — Mechanical Behavior of Solids	1
T.A.M. 150 — Analytical Mechanics (Statics)	2	Elective[3]	3-4
Total	19-20	Total	17-18

FOURTH YEAR			
Ag. Ec. 220 — Farm Management	3	Ag. E. 298 — Seminar	1
C.E. 261 — Structural Theory I, or M.E. 220 — Mechanics of Machinery	3-4	T.A.M. 235 — Fluid Mechanics	4
E.E. 220 — Basic Electrical Engineering	3	Technical elective	3
M.E. 209 — Thermodynamics	3	Electives[3]	8-9
Electives[3]	3-6	Total	16-17
Total	15-19		

FIFTH YEAR

Agricultural engineering technical elective II	3	Ag. E. 299 — Undergraduate Thesis	2
Technical elective	3	Agricultural engineering technical elective II	3
Electives[3]	9	Electives[3]	10-11
Total	15	Total	15-16

[1] Chem. 101 has the prerequisite of a satisfactory score on the Chemistry Placement Test and Math. 111 or 112, or exemption therefrom. Students not exempt from Math. 111 or 112 should delay Chem. 101 until the second semester.

[2] Students with three to four years of high school mathematics, including trigonometry, and a satisfactory grade on the Mathematics Placement Test may take Math. 120 the first semester and follow the common program for freshmen in the College of Engineering.

[3] Electives must include the following:

– Four hours of agriculture, other than agricultural engineering and agricultural mechanization, Agron. 101 and 121, and Ag. Ec. 220.

– Six hours of biological science in addition to Bot. 100 (botany, entomology, microbiology, physiology, and zoology).

– A 6-hour sequence in humanities courses. (See pages 128 to 129.) Since the list of courses which the College of Engineering and College of Agriculture accept for humanities varies, students should be careful to select those which are acceptable to both colleges.

– A minimum of 9 hours of approved social sciences, including Econ. 101, and an approved 6-hour sequence in social science. Since the list of courses which the College of Engineering and College of Agriculture accept for social science varies, students should be careful to select those which are acceptable to both colleges.

– Sufficient approved electives (normally 3 hours) in the humanities in addition to the third item above to satisfy the College of Engineering requirements. (See page 219.)

– Sufficient open electives to total the minimum curriculum requirements of 160 hours. All requirements of the combined curriculum as outlined must be completed to satisfy the requirements for a degree in agriculture.

Agricultural Engineering Technical Electives

Each student must have a minimum of 12 hours of agricultural engineering technical electives. These hours must include at least two courses from group I and two courses from group II listed below.

GROUP I	HOURS
Ag. E. 236 — Machine Characteristics and Mechanisms	3
Ag. E. 256 — Surveying Agricultural and Forest Lands	2
Ag. E. 287 — Environmental Control of Plants and Animals	3
Ag. E. 311 — Instrumentation and Measurements	3-4
Ag. E. 340 — Introduction to Applied Statistics	3

GROUP II	
Ag. E. 277 — Design of Concrete and Steel Structures for Agriculture	3
Ag. E. 336 — Design of Agricultural Machinery	3
Ag. E. 346 — Tractors and Prime Movers	3
Ag. E. 356 — Soil Conservation Structures	3
Ag. E. 357 — Land Drainage	3
Ag. E. 387 — Agricultural Process Engineering	3

Technical Electives

A minimum of 6 hours is required. All courses must satisfy the College of Engineering requirements as given on pages 220 to 221 of this catalog. Students desiring to specialize in a specific area of agricultural engineering may use the following lists as guides in choosing their technical electives:

POWER AND MACHINERY	HOURS
Ag. E. 236 — Machine Characteristics and Mechanisms	3
Ag. E. 311 — Instrumentation and Measurements	3-4
Ag. E. 336 — Design of Agricultural Machinery	3
Ag. E. 340 — Introduction to Applied Statistics	4
Ag. E. 346 — Tractors and Prime Movers	3
M.E. 224 — Design of Machine Elements	3
M.E. 234 — Heat Treatment of Metals	3

PROCESSING	
Ag. E. 236 — Machine Characteristics and Mechanisms	3
Ag. E. 287 — Environmental Control for Plants and Animals	3
Ag. E. 311 — Instrumentation and Measurements	3-4
Ag. E. 336 — Design of Agricultural Machinery	3
Ag. E. 340 — Introduction to Applied Statistics	4
Ag. E. 387 — Agricultural Process Engineering	3
E.E. 306 — Electronics and Instrumentation (3) and E.E. 307 — Electronics and Instrumentation Laboratory (1), or E.E. 328 — Application and Control of Electromechanical Devices (3) and E.E. 329 — Electromechanical Devices Laboratory (1)	4

SOIL AND WATER	
Ag. E. 277 — Design of Concrete and Steel Structures for Agriculture	3
Ag. E. 287 — Environmental Control for Plants and Animals	3
Ag. E. 311 — Instrumentation and Measurements	3-4
Ag. E. 340 — Introduction to Applied Statistics	4
Ag. E. 356 — Soil Conservation Structures	3
Ag. E. 357 — Land Drainage	3

STRUCTURES AND ENVIRONMENT	
Ag. E. 277 — Design of Concrete and Steel Structures for Agriculture	3
Ag. E. 287 — Environmental Control for Plants and Animals	3
Ag. E. 311 — Instrumentation and Measurements	3-4
Ag. E. 340 — Introduction to Applied Statistics	4
C.E. 214 — Properties and Behavior of Concrete	2
C.E. 262 — Structural Theory II	3

CURRICULUM IN FOOD INDUSTRY

For the degree of Bachelor of Science in Food Industry

The food industry curriculum is designed to provide the student with training in preparation for a career in the food industry in such areas as business administration, food engineering, food production, food processing, quality control, and public health. A minimum of 130 hours of credit is required for graduation.

Students are urged to engage in at least one summer of employment in the food industry and are required to go on an inspection trip in either the junior or senior year. The trip will cost approximately $35.

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Chem. 101 — General Chemistry[1]	4
F.S. 101 — Food in Modern Society	3
Math. 111 — Algebra or Math. 112 — College Algebra[2] or exemption[1]	3-5
Sp. Com. 111 — Verbal Communication	3
Total	14-16

SECOND SEMESTER	HOURS
Biological science[3]	4
Chem. 102 — General Chemistry	4
Math. 114 or alternate course[2]	2-3
Sp. Com. 112 — Verbal Communication	3
Elective[6]	3
Total	16-17

SECOND YEAR

Econ. 101 — Introduction to Economics . . . 4
F.S. 213 — Food Analysis I 3
Mcbio. 100 — Introductory Microbiology . . 3
Mcbio. 101 — Introductory Experimental Microbiology 2
Humanities elective[5] 3
Elective[6] 3
Total 18

Accy. 201 — Fundamentals of Accounting . . 3
F.S. 202 — Sensory Evaluation of Food . . . 3
F.S. 214 — Survey of Food Chemistry 3
Social science elective[4] 3-4
Elective[6] 3-4
Total 16-17

THIRD YEAR

F.S. 260 — Raw Materials 4
F.S. 363 — Introduction to Process Engineering 3
Humanities elective[5] 3
Social science elective[4] 3
Elective[6] 3
Total 16

Mcbio. 311 — Food and Industrial Microbiology 3
Mcbio. 312 — Techniques of Applied Microbiology 2
Electives[6] 11
Total 16

FOURTH YEAR

F.S. 301 — Food Processing 5
Electives[6] 12
Total 17

F.S. 310 — Dairy Product Processing 5
F.S. 206 — Inspection Trip 0
F.S. 332 — Principles of Sanitation in Processing and Handling of Food 2
Electives[6] 9
Total 16

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[1] To take Chem. 101, a student must have completed Math. 111 or 112 (or equivalent) or have gained exemption by the Mathematics Placement Test. He must also have a satisfactory score on the Chemistry Placement Test or take Chem. 100 (2 hours) before enrolling in Chem. 101.

[2] In addition to Math. 111 or 112, the student must take one course from the following: Math. 114; Math. 124 or equivalent; computer science; statistics. If the student is exempt from trigonometry by placement examination, no additional course from the above group is required.

[3] May be Biol. 101, 110, Bot. 100, Physl. 103, or Zool. 104.

[4] A minimum of 9 hours from two departments in social science, including Econ. 101.

[5] An approved 6 hours in the humanities.

[6] At least 15 hours, of which at least 6 hours are advanced undergraduate courses (200 and 300 level), must be taken in any one of the options listed below.

Business Option

Elective courses to be taken from the following areas: accountancy, advertising, agricultural economics, agricultural journalism, business administration, business and technical writing, economics, finance, labor and industrial relations, and marketing.

Engineering Option

Elective courses to be taken from the following engineering areas: agricultural, chemical, civil, electrical, mechanical, metallurgical, industrial, theoretical and applied mechanics.

Production Option

Elective courses to be taken from the following production areas: agricultural engineering, animal science, agronomy, dairy science, horticulture, plant pathology, veterinary pathology, and hygiene.

CURRICULUM IN FOOD SCIENCE

For the degree of Bachelor of Science in Food Science

This program is designed for students who wish to be trained in the scientific aspects of food processing, quality control, research, product development, and technical sales functions for employment in the food industry, governmental agencies, and educational institutions. This curriculum also provides the scientific background for graduate study in the areas of food processing, food chemistry, food microbiology, and nutritional science. A minimum of 130 hours of credit is required for graduation.

Students are urged to engage in at least one summer of employment in the food processing industry and are aided in making contact with prospective employers. A senior inspection trip is required; the trip will cost about $35.

FIRST YEAR — FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Chem. 101 — General Chemistry[1]	4
F.S. 101 — Food in Modern Society	3
Math. 114 — Plane Trigonometry[2]	2
Sp. Com. 111 — Verbal Communication	3
Social science elective[3]	3
Total	16

SECOND SEMESTER	HOURS
Biological science[4]	4
Chem. 102 — General Chemistry	4
Math. 120 — Calculus and Analytic Geometry	5
Sp. Com. 112 — Verbal Communication	3
Total	16

SECOND YEAR

Chem. 131 — Elementary Organic Chemistry	3
Chem. 134 — Organic Chemistry Lab.	2
Math. 130 — Calculus and Analytic Geometry	5
Phycs. 101 — General Physics	5
Total	15
F.S. 202 — Sensory Evaluation of Food	3
Mcbio. 100 — Introductory Microbiology	3
Mcbio. 100 — Introductory Experimental Microbiology	2
Phycs. 102 — General Physics	5
Social science elective[3]	3
Total	16

THIRD YEAR

F.S. 213 — Food Analysis I	3
F.S. 260 — Raw Materials for Processing	4
F.S. 314 — Food Chemistry I	3
F.S. 363 — Introduction to Process Engineering	3
Humanities elective[6]	3
Total	16
F.S. 313 — Food Analysis II	3
F.S. 315 — Food Chemistry II	3
Mcbio. 311 — Food and Industrial Microbiology	3
Mcbio. 312 — Techniques of Applied Microbiology	2
Electives	5
Total	16

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[1] To take Chem. 101, a student must have completed Math. 111 or 112 (or equivalent) or have gained exemption by the Mathematics Placement Test. He must also have a satisfactory score on the Chemistry Placement Test or take Chem. 100 (2 hours) before enrolling in Chem. 101.

[2] Students exempt from both Math. 112 and 114 by the Mathematics Placement Test may begin with Math. 120. Those who are not exempt from Math. 112 and do not have credit for college algebra must take Math. 111 or Math. 112. If Math. 114 and Chem. 101 cannot be taken in the first semester, adjustments in the suggested course sequence must be made.

[3] A minimum of 9 hours of approved social sciences is required. Courses must be selected from at least two departments.

[4] May be Biol. 110, Bot. 100, Physl. 103, or Zool. 104.

FOURTH YEAR

F.S. 301 — Food Processing	5
Electives	13
Total	18
F.S. 206 — Inspection Trip	0
F.S. 310 — Dairy Product Processing	5
F.S. 320 — Nutrition in Food Science[5]	3
F.S. 332 — Principles of Sanitation in Processing and Handling of Food	2
Social science elective[3]	3
Humanities elective[6]	3
Electives	0-3
Total	16-19

[5] F.S. 324 may be substituted for F.S. 320, but the student may not receive credit for both.

[6] A minimum of 6 hours of approved humanities courses is required.

CURRICULUM IN FOREST SCIENCE

For the degree of Bachelor of Science in Forestry

The curriculum in forest science prepares students for positions involving management of natural resources, particularly those associated with forests and forest land including environmental quality and ecology. Graduates may qualify for employment in a wide range of fields with public agencies or private industry. A minimum of 126 hours of credit, including 8 hours earned in summer field study, is required for graduation.

A summer field study of eight weeks is required for all students. This should come between the second and third year. The estimated cost of $600 includes tuition, fees, transportation, meals, and lodging.

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Biology[1]	4
Communications[2]	3-4
For. 101 — General Forestry[3]	3
Math. 120 — Calculus and Analytic Geometry[4]	5
Total	16-17

SECOND SEMESTER	HOURS
Biology[1]	4
Chem. 101 — General Chemistry[5]	4
Communications[2]	3
Humanities, social sciences, or electives[6]	6
Total	17

[1] The biology requirement may be fulfilled by either Bot. 100 and Zool. 104, or Biol. 110 and 111, or equivalent.

[2] The communication requirement may be fulfilled by either Rhet. 105 or 108 and Sp. Com. 101, or Sp. Com. 111 and 112.

[3] Transfer students with sophomore standing (30 hours) may substitute For. 256, Geog. 378, Rec. 321, or Zool. 342 in place of For. 101.

[4] Students who pass the algebra portion of the Mathematics Placement Test are exempt from the algebra requirement; those who pass the algebra and trigonometry portions of these tests begin their college mathematics with Math. 120 — Calculus and Analytic Geometry. Mathematics through Math. 120 is required of all students. Transfer students with 3 or more semester hours of analytic geometry may substitute Math. 135 — Calculus, for Math. 120.

[5] To take Chem. 101 a student must have a satisfactory score on the Chemistry Placement Test and exemption from or credit in Math. 111 or 112; students who have not had high school chemistry or who do not score high enough on the Chemistry Placement Test, must take Chem. 100 before taking Chem. 101.

[6] Humanities and social sciences: An approved 6 hours in the humanities. A minimum of 9 hours from two departments in the social sciences, including Econ. 101.

SECOND YEAR

Chem. 102 — General Chemistry or Chem. 103 — General Chemistry, Organic Chemical Studies 4
For. 220 — Dendrology 4
Geol. 107 — General Geology I 4
Phycs. 101 — General Physics (Mechanics, Heat, and Sound) 5
Total 17

Agron. 101 — Introduction to Soils.....4
Humanities, social sciences, or electives[6] 6
Phycs. 102 — General Physics (Light, Electricity, and Magnetism) 5
Econ. 101 4
Total 19

SUMMER FIELD STUDIES (8 WEEKS)

For. 201 — Wildland Recreation 1
For. 211 — Forest Ecology 2
For. 221 — Forest Measurements 2
For. 231 — Wood Utilization 1
For. 281 — Introduction to Forest Resource Management 2
Total 8

THIRD AND FOURTH YEARS[7]

The programs for the third and fourth years must be planned in consultation with the student's faculty adviser. The four-year course of study must include the following:

	HOURS
For. 101 — General Forestry[3]	3
For. 201 — Wildland Recreation (Summer Field Studies)	1
For. 211 — Forest Ecology (Summer Field Studies)	2
For. 220 — Dendrology	4
For. 221 — Forest Measurements (Summer Field Studies)	2
For. 231 — Wood Utilization I (Summer Field Studies)	1
For. 253 — Forest Economics	3
For. 281 — Introduction to Forest Resources Management (Summer Field Studies)	2
Entom. 319 — Fundamentals of Insect Control, or Pl. Pa. 304 — Forest Tree Diseases and Wood Deterioration	3-4
Total	21-22

In addition, the student must complete at least one additional course from the following group of forestry and specialized area courses:

Ag. Ec. 341 — Agricultural Economic Statistics, or For. 340 — Introduction to Applied Statistics, or Math. 161 — Statistics
For. 232 — Wood Utilization
For. 242 — Forest Resources Management
For. 256 — Surveying Agricultural and Forest Lands
For. 260 — Forest Land Policy and Administration
For. 271 — Wood Anatomy and Identification
For. 321 — Forest Biometrics
For. 324 — Decision Models in Forestry
Entom. 319 — Fundamentals of Insect Control, or Pl. Pa. 304 — Forest Tree Diseases and Wood Deterioration (Depending upon which course the student selects from required list)
Geog. 378 — Descriptive Interpretation of Remote Sensors
Rec. 321 — Recreational Use of Public Land
Zool. 342 — Wildlife Management and Conservation
Minimum hours of required forestry and specialized area courses 24
Humanities and social sciences: An approved 6 hours in the humanities and a minimum of 9 hours from two departments in the social sciences, including Econ. 101 15
Electives to bring total hours to 126

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[3] Transfer students with sophomore standing (30 hours) may substitute For. 256, Geog. 378, Rec. 321, or Zool. 342 in place of For. 101.

[7] One-half of the required forestry and specialized area hours must be completed in residence at the University of Illinois at Urbana-Champaign.

CURRICULUM IN ORNAMENTAL HORTICULTURE

For the degree of Bachelor of Science in Ornamental Horticulture

This curriculum prepares students for careers in the production, marketing, and use of ornamental crops; in teaching, research, or other related professional activities; or in business serving or related to ornamental horticulture. Opportunities open to graduates are: the production of flowers and ornamental plants in greenhouses and nurseries; plant breeding; flower shop management and floral designing; park and golf course management; sales representatives and technicians with seed and plant suppliers, chemical industries, and horticultural supply firms; employment with state or federal governmental agencies or institutions as teachers, researchers, horticultural advisers, crop inspectors, etc.; consultants; and writers.

Students are required to make at least one inspection trip before graduation. Students are encouraged to acquire practical experience through employment in ornamental horticultural establishments. A minimum of 130 hours of credit is required for graduation.

Areas of specialization include production of floral crops; nursery management and production, use, and maintenance of woody ornamental crops; production and maintenance of turfgrass; and flower shop management and floral designing.

Questions concerning the curriculum and areas of specialization in ornamental horticulture should be directed to 100 Ornamental Horticulture Building, University of Illinois at Urbana-Champaign, Urbana, Illinois 61801.

FIRST YEAR — FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society[1]	1
Bot. 100 — General Botany	4
Course from group I	0-3
Hort. 122 — Greenhouse Management	3
Math. 111 — Algebra, or Math. 112 — College Algebra[2]	3-5
Sp. Com. 111 — Verbal Communication[3]	3
Total	15-18

SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry[4]	4
Course from group I	3
Entom. 101 — Agricultural Entomology	3
Math. 114 — Plane Trigonometry[2]	2
Sp. Com. 112 — Verbal Communication[3]	3
Total	15

SECOND YEAR

Chem. 102 — General Chemistry or Chem. 103 — General Chemistry: Organic Chemical Studies	4
Courses from groups I and II	8-9
Elective	3-4
Total	15-17
Agron. 101 — Introductory Soils	4
Courses from groups I and II	6
Econ. 101 — Introduction to Economics	4
Elective	3
Total	17

THIRD AND FOURTH YEARS

The third and fourth years are to be devoted to the fulfillment of the group requirements listed below.

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[1] An orientation course required of all freshmen in agriculture.

[2] Students in this curriculum are required to complete Math. 111 or 112 and 114 unless exempted by the Mathematics Placement Test.

[3] Rhet. 105 or 108, and Sp. Com. 101 may be substituted for Sp. Com. 111 and 112.

[4] To take Chem. 101, a student must have a satisfactory score on the Chemistry Placement Test, or take Chem. 100 (2 hours) and have Math. 111 or 112 or equivalent before enrolling in Chem. 101.

Group Requirements

GROUP I: HUMANITIES AND SOCIAL SCIENCES	HOURS
An approved 6 hours in the humanities and a minimum of 9 hours from two departments in the social sciences (including Econ. 101)	15

GROUP II: PRESCRIBED HORTICULTURE AND SUPPORTING COURSES

Accy. 101 — Principles of Accounting I 3
Bot. 260 — Introductory Plant Taxonomy, or Bot. 366 — Field Botany 3
Hort. 201 — Identification and Use of Woody Ornamental Plants I 3
Hort. 202 — Identification and Use of Woody Ornamental Plants II 3
Hort. 221 — Plant Propagation 3
Hort. 226 — Bedding and Foliage Plants 3
Pl. Pa. 204 — Introductory Plant Pathology 3
Total 21

GROUP III: HORTICULTURE ELECTIVE COURSES

Hort. 110 — Plant and Animal Genetics 3
Hort. 210 — Home Grounds Planning and Design[1] 4
Hort. 211 — Home Grounds Development and Construction 3
Hort. 212 — Landscape Contracting 3
Hort. 223 — Floricultural Crops Production I 3
Hort. 224 — Floricultural Crops Production II 3
Hort. 230 — Garden Flowers 3
Hort. 231 — Floral Decorations 3
Hort. 232 — Advanced Floral Decorations and Flower Shop Management[2] 3
Hort. 234 — Nursery Management 3
Hort. 236 — Turf Management 3
Hort. 242 — Vegetable Crops Production 3
Hort. 251 — Arboriculture 3
Hort. 262 — Fruit Science[2] 3
Hort. 300 — Special Problems (maximum of 5 hours) 3-5
Hort. 321 — Floricultural Physiology 4
Hort. 322 — Plant Nutrition 4
Hort. 323 — Principles of Plant Breeding 4
Hort. 345 — Growth and Development of Horticultural Crops[2] 4
Minimum total, chosen with approval of faculty adviser 15

[1] Credit allowed toward fulfilling requirement in group III only if Hort. 211 is completed.
[2] Offered in alternate years.

GROUP IV: AREA OF SPECIALIZATION COURSES

Accy. 105 — Principles of Accounting II 3
Adv. 281 — Introduction to Advertising 3
Ag. Ec. 341 — Agricultural Economic Statistics, or Hort. 340 — Introduction to Applied Statistics, or Econ. 171 — Applied General Statistics, or Math. 161 — Statistics 3-4
Ag. M. 100 — Engineering Applications in Agriculture 3
Ag. M. 201 — Agricultural Mechanics Shop: Electrical and Metalwork 3
Ag. M. 252 — Mechanics of Soil and Water Conservation 3
Agron. 303 — Soil Fertility 3
Agron. 304 — Soil Management and Conservation 3
Agron. 326 — Weeds and Their Control 3
Bot. 234 — Form and Function in Flowering Plants 3
Bot. 330 — Plant Physiology 3
Bot. 333 — Plant Physiology Laboratory (same as Hort. 333) 4
Bot. 345 — Plant Anatomy 4
Bot. 381 — Plant Ecology 5
Business administration, business and technical writing, and/or finance[1] 0-9
Chem. 131 — Elementary Organic Chemistry 3
Chem. 134 — Elementary Organic Chemistry Laboratory 2
Computer science[2] 3

[1] Business administration, business and technical writing, and/or finance courses for which student qualifies and with consent of adviser; up to 9 hours credit.
[2] Computer science course for which student qualifies and with consent of adviser.

Entom. 319 — Fundamentals of Insect Control 4
Geol. 101 — An Introduction to the Study of the Earth, or Geol. 107 — General Geology I 4
Pl. Pa. 305 — Principles of Disease Control 3
Pl. Pa. 308 — Plant Disease Diagnosis 2
Minimum total, chosen with approval of faculty adviser 15

CURRICULUM IN PREVETERINARY MEDICINE

Students wishing to complete the preprofessional requirements for veterinary medicine in the College of Agriculture may do so within a variety of curricula. However, courses required are equivalent to those recommended for students majoring in animal science or dairy science. (See pages 135 and 137.)

Because of the very severe competition for admission, students should plan to complete a bachelor's degree program. For fall 1974 there were approximately six qualified applicants for each space available in the entering class in veterinary medicine. This represented a one-third increase of qualified applicants over the previous year. The mean grade-point average of admitted students was 4.54.

Specific information about veterinary medicine, including admission requirements, can be found on page 381.

CURRICULUM IN WOOD SCIENCE

For the degree of Bachelor of Science in Forestry

The curriculum in wood science concerns wood as a raw material, including its origin, properties, and characteristics. The approach is interdisciplinary, requiring a knowledge of the chemical, physical, biological, and engineering properties of wood. The curriculum prepares students for positions concerned with using wood in new and better ways; with seasoning, manufacturing, purchasing, marketing, preservative or fire-retardant treatments, gluing, or wood finishing. A minimum of 126 hours of credit, including 8 credit hours earned in summer field studies, is required for graduation. Estimated summer expense, $600.

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Bot. 100 — General Botany	4
For. 101 — General Forestry[1]	3
Math. 111 — Algebra, or Math. 112 — College Algebra[2]	3-5
Sp. Com. 111 — Verbal Communication[3]	3
Total	14-16

SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry[4]	4
Econ. 101 — Introduction to Economics	4
Math. 114 — Plane Trigonometry[2]	2
Sp. Com. 112 — Verbal Communication[3]	3
Humanities or social sciences	3
Total	16

[1] Transfer students with sophomore standing (30 hours) may substitute an elective course for For. 101.

[2] Students who pass the algebra portion of the Mathematics Placement Test are exempt from the algebra requirement; those who pass both the algebra and trigonometry portions of these tests may begin their college mathematics with Math. 120 — Calculus and Analytic Geometry. Math. 130 and 140 or 131 and 141 are also recommended.

[3] Rhet. 105 or 108 and Sp. Com. 101 may be substituted for Sp. Com. 111 and 112.

[4] To take Chem. 101, a student must have a satisfactory score on the Chemistry Placement Test, or take Chem. 100 (2 hours) and have Math. 111 or 112, or the equivalent, before enrolling in Chem. 101.

SECOND YEAR

Chem. 102 — General Chemistry 4
Math. 120 — Calculus and Analytic Geometry 5
Phycs. 101 — General Physics (Mechanics, Heat, and Sound) 5
Humanities or social sciences 3
Total 17

Chem. 131 — Elementary Organic Chemistry 3
Chem. 134 — Elementary Organic Chemistry Laboratory 2
Phycs. 102 — General Physics (Light, Electricity, and Magnetism) 5
Humanities or social sciences 6
Total 16

SUMMER FIELD STUDIES (EIGHT WEEKS)

For. 201 — Wildland Recreation 1
For. 211 — Forest Ecology 2
For. 221 — Forest Measurements 2
For. 231 — Wood Utilization I 1
For. 281 — Introduction to Forest Resource Management 2
Total 8

THIRD AND FOURTH YEARS

The programs for the third and fourth years must be planned in consultation with the student's faculty adviser. In addition to the following required courses, the student must complete sufficient elective courses to bring the total hours for graduation to 126. At least 15 of the elective hours must be restricted electives.

Required Specialized Courses

	HOURS
For. 220 — Dendrology	4
For. 232 — Wood Utilization	3
For. 236 — Physical Properties of Wood and Wood-Base Materials	3
For. 253 — Forest Economics	3
For. 271 — Wood Anatomy and Identification	3
For. 273 — Adhesives and Laminates	3
For. 274 — Wood Deterioration and Its Prevention	3
For. 275 — Seminar in Wood Science	2
For. 340 — Introduction to Applied Statistics, or Ag. Ec. 341 — Agricultural Economic Statistics, or Econ. 172-173 — Economic Statistics I and II	3-6
For. 372 — Mechanical Properties of Wood and Wood-Base Materials	3
Total	30-33

Restricted Electives

	HOURS
Accy. 201 — Fundamentals of Accounting	3
B. Adm. 200 — The Legal Environment of Business	3
B. Adm. 202 — Principles of Marketing	3
B. Adm. 210 — Management and Organizational Behavior	3
B. Adm. 261 — Summary of Business Law	3
B. Adm. 272 — Industrial Selling	3
B. Adm. 320 — Marketing Research	3
Chem. 122 — Elementary Quantitative Analysis	3
C.E. 369 — Behavior and Design of Wood Structures	3
C.S. 101 — Introduction to Automatic Digital Computing	3
Fin. 150 — Money, Credit, and Banking	3
Fin. 257 — Corporation Finance	3
For. 222 — Advanced Forest Measurements	3
G.E. 282 — Introduction to Patent Law	1
G.E. 288 — Economic Analysis for Engineering Decision Making	3
G.E. 290 — Contracts and Specifications	3
G.E. 292 — Engineering Law	3
I.E. 230 — Labor Relations	3
I.E. 357 — Safety Engineering	3
L.I.R. 321 (Section B) — Industrial Social Systems	3
L.I.R. 347 — Labor Law I	3

Math. 130 or 131 — Calculus and Analytic Geometry	5-3
Math. 140 or 141 — Calculus and Analytic Geometry	3-5
Math. 135 or 145 — Calculus	5
Math. 345 — Differential Equations and Orthogonal Functions	3
Minimum total	15

Humanities and Social Sciences

An approved 6 hours in the humanities. A minimum of 9 hours from two departments in the social sciences, including Econ. 101. (See pages 128 and 129.)

CURRICULUM IN HOME ECONOMICS

For the degree of Bachelor of Science in Home Economics

This four-year curriculum is provided for students in the College of Agriculture who desire professional training in home economics. The 120 hours required for graduation include prescribed courses of which at least 28 hours must be in home economics courses selected according to the requirements for the various options (see page 160).

The first two years of this curriculum, shown in detail on page 161, provide a foundation for the various fields of concentration, and allow some variation according to the purposes of individual students. The third and fourth years are largely determined by the option selected (these are described below). Students who hold home economics scholarships must take at least 4 hours each semester in home economics or in courses prerequisite thereto. At least 5 hours of advanced courses in one of the fields of concentration must be taken in residence at the University by any student transferring from another institution.

A student may also qualify for a baccalaureate degree in home economics in the College of Liberal Arts and Sciences. (See page 333.)

Students preparing to teach home economics in secondary schools should follow the curriculum in home economics education. (See page 164.)

Prescribed Courses

	HOURS
Art 185[1]	2
Chem. 101[2] and 102	8
Econ. 101	4
Humanities	6
Prescribed home economics[3]	28-39
Math. 111 or 112	3-5
Mcbio. 100 and 101[4]	5
Physl. 103[4]	4
Psych. 100 or 103	3-4
Rhet. 105 or 108[5]	4

[1] Students in option 1 need not take Art 185 but do take the art courses prescribed under that option.

[2] Students who do not make a satisfactory score on the Chemistry Placement Test must take Chem. 100 and have Math. 111 or 112 or equivalent before registering for Chem. 101.

[3] Courses as prescribed by the option, plus three courses from outside the area to total 28 hours. Areas are: child and family; foods and nutrition, hospital dietetics, and institution management; home management and family economics; housing, interior design, and equipment; textiles and clothing. Prescribed courses in the general option include at least one course from each of the five areas.

[4] Students in options 1 and 9 are not required to take the prescribed microbiology and physiology courses, but they must take a total of 12 hours of laboratory sciences, including Chem. 101 and 102 and 4 hours to be chosen from courses in botany, geology, microbiology, organic chemistry, physiology, or zoology.

[5] Sp. Com. 111 and 112 may be substituted for Rhet. 105 or 108.

Soc. 100	3
Total, prescribed	69-83
Open electives	37-51
Total required for graduation	120

Options

1. Apparel Design. H. Ec. 183, 184, 186, 284, 285, 286, 287, 386, and 395 are required. (Art 115 or 116, 117, 118, 119, 120, 125, and 129; B.&T.W. 251; Econ. 313; Sp. Com. 101; and a course in applied statistics[1] are also required.)

2. The Child and the Family. H. Ec. 105, 106, 202, 203, 210, and 301 are required. (Anth. 103 and 6 additional hours of social sciences[2] are also required.)

3. Foods and Nutrition. H. Ec. 132, 133, 220, 231, 324, and 330 are required. Students who take H. Ec. 324 for 3 hours must complete one of the following: H. Ec. 240, 320, 322, or 331. (Chem. 122, 131, 134, Bioch. 350 and 355, and Math. 114 are also required.)

4. Foods in Business. H. Ec. 132, 133, 220, 231, and 330 are required. Six additional hours are to be selected from H. Ec. 326, 331, and 375. B. Adm. 202, B.&T.W. 251, Journ. 211, and Sp. Com. 101 are required, and an additional 12 hours are to be selected from Adv. 281, 382, Ag. Com. 214, 300, B. Adm. 210, H. Ec. 240, 313, 322, 370, Journ. 223, 326, R. TV 261, Sp. Com. 211, and applied statistics.

5. General Home Economics. A minimum of 28 hours in home economics is required. These 28 hours include at least one course from each of the five areas; 15 hours must be at the 200-300 level with a minimum of two courses at the 300 level. (Six additional hours of social sciences[2] are also required.)

6. Home Management. H. Ec. 132, 133, 171, 270, 273, and 361 or 375 are required. Six additional hours are to be selected from H. Ec. 210, 220, 231, 260, 261, 330, 361, 371, 375, 378, 379, and 380. (Six additional hours of social sciences[2] are also required.)

7. Hospital Dietetics. H. Ec. 132, 133, 220, 231, 240, 320, 324, 345, 350, and 3 hours from H. Ec. 330, 355, and Accy. 201 are required. Chem. 122, 131, 134; Bioch. 350 and 355; Ed. Psy. 211; and B. Adm. 210, and 249 or 321 are also required.

8. Institution Management. H. Ec. 132, 133, 220, 231, 240, 330, 345, 350, and 355 are required. (Accy. 101 and 105; B. Adm. 210, and 249 or 321; and Sp. Com. 101 are also required.)

9. Retailing of Clothing and Home Furnishings. H. Ec. 160 or 184, 182 or 186, 183, 280 or 380, and 395 are required. Nine hours are to be selected from H. Ec. 260, 261, 263, 280, 281, 284, 285, 286, 287, 361, 378, 380, 386, and 388. Adv. 281; Art 115 or 116, 185, 186; B. Adm. 202, 212; B.&T.W. 251; Econ. 313; Psych. 201; Sp. Com. 101; and a course in applied statistics[1] are required.

10. Textiles and Clothing. H. Ec. 182 or 186, 183, 184, 286, and 380 are required. Ten or 11 additional hours must be selected from H. Ec. 280, 281, 284, 285, 287, 386, 388, and 395. (Art 186 and 6 additional hours of social sciences[2] are also required.)

Journalism and Home Economics. For students interested in combining advertising, journalism, and radio-television with home economics, a program of 20 hours in courses offered by the College of Communications is recommended by that college

[1] To be selected from Econ. 171, Psych. 135, or Soc. 185.

[2] To be selected from anthropology, economics, history, philosophy, political science, psychology, or sociology, in addition to Econ. 101, Psych. 100 or 103, and Soc. 100.

and the School of Human Resources and Family Studies. This program may be combined with any of the ten options in home economics. It includes Adv. 281 — Introduction to Advertising, Journ. 211 — Newswriting, and R. TV 261 — Principles of Radio and Television Broadcasting, as required courses plus 12 additional hours selected from Adv. 382 — Advertising Creative Strategy and Tactics, Journ. 204 — Typography, Journ. 212 — Public Affairs Reporting, Journ. 223 — Photojournalism, Journ. 321 — Editing, Journ. 326 — Magazine Article Writing, Journ. 330 — Magazine Editing, B. Adm. 202 — Principles of Marketing, R. TV 263 — Radio and Television Announcing, R. TV 365 — Radio News.

Suggested Sequence of Prescribed Courses

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Home economics course(s)	4	Art 185 — Design[3]	2
Math. 111 — Algebra, or Math. 112 — College Algebra	3-5	Chem. 101 — General Chemistry	4
Physl. 103 — Introduction to Human Physiology[1,2]	4	Home economics course(s)	3-4
Rhet. 105 or 108 — Composition, or equivalent	4	Psych. 100 — Introduction to Psychology, or Psych. 103 — Human Behavior	3
Total	15-17	Elective	3
		Total	15-17
SECOND YEAR			
Humanities	3	Humanities	3
Chem. 102 — General Chemistry[1]	4	Econ. 101 — Introduction to Economics	4
Home economics course(s)	3-4	Home economics course(s)	2-3
Soc. 100 — Introduction to Sociology	3	Mcbio. 100 — Introductory Microbiology[1]	3
Elective	2-3	Mcbio. 101 — Introductory Experimental Microbiology[1]	2
Total	15-17	Elective	2-3
		Total	16-18

[1] Students in options 1 and 9 are not required to take the prescribed microbiology and physiology courses, but they must take a total of 12 hours of laboratory sciences, including Chem. 101 and 102 and 4 hours to be chosen from twelve courses in botany, geology, microbiology, organic chemistry, physiology, or zoology.

[2] Physl. 103 requires high school chemistry or Chem. 100 as a prerequisite.

[3] Students in option 1 need not take Art 185 but do take the art courses prescribed under that option. (See page 160.)

THIRD AND FOURTH YEARS

In the third and fourth years each student completes the prescribed courses in the chosen options. Those who choose option 3 should take Chem. 122 and H. Ec. 231 in the first semester of the third year.

CURRICULUM IN INTERIOR DESIGN

For the degree of Bachelor of Science in Interior Design

The interior design curriculum is for those students wishing to work professionally in the field of interior design. Emphasis is on interior space planning and related phases of environmental design in reference to the human. Graduates are employed by interior design and space planning studios, department and retail furniture stores, and county cooperative extension and urban renewal resource offices.

The 120 credit hours required for graduation include 18 credit hours in professional interior design courses, 12 to 14 credit hours in other home economics courses, 28 credit hours in art, 40 to 42 credit hours in general liberal arts, and 18 to 22 credit hours in electives.

Prescribed Courses

	HOURS
H. Ec. 160, 183, 260, 261, 262, 263; and 6 hours from H. Ec. 361, 375, or 378; and three courses from home economics areas other than housing, interior design, and equipment	30-32
Art 111, 112, 117, 118, 119, 120, 121, 122, 133, 134	28
Anthropology (cultural); Econ. 101; Math. 111 or 112; Psych. 100; Rhet. 105 or 108; Soc. 100; and Sp. Com. 101	27-29
Approved natural sciences[1]	8
Electives	23-27
Total required for graduation	120

[1] Students in this curriculum must complete a minimum of 8 hours natural sciences from the following: Biological sciences — Anth. 240, 247, 337, 340, 341, 356, 396; any courses in biology, botany, entomology, microbiology, physiology; Psych. 211, 217, 310, 347; any courses from physiology and zoology. Physical sciences — all courses in astronomy, biochemistry, chemistry, geology, and physics; Geog. 102, 103, 303, 312, and 313; L.A.S. 140, 141, 142, 143, 197, and 198; all courses in mathematics except Math. 101, 104, 111, 112, 118, 119, 161, 202, 203, 305, 306, and 307.

Suggested Sequence of Prescribed Courses

Two two-day field trips are required. Estimated cost: $30 each trip.

Two summers' experience, of a minimum of eight weeks each, or equivalent, in the interior design field is recommended and should be completed before registering in H. Ec. 378. This experience normally should come at the end of the second and third years.

FIRST YEAR — FIRST SEMESTER	HOURS
H. Ec. 160 — The Home and Its Furnishings	4
H. Ec. 183 — Consumer Textiles, or cultural anthropology	2-4
Math. 111 — Algebra, or Math. 112 — College Algebra	5-3
Rhet. 105 or 108 — Composition, or Sp. Com. 111 — Verbal Communication[1]	4-3
Total	14-15

SECOND SEMESTER	HOURS
Art 117 — Drawing I	3
Art 119 — Design I	3
Natural science	4
Home economics elective[2]	2
Sp. Com. 112 — Verbal Communication, or Sp. Com. 101 — Principles of Effective Speaking[1]	3
Total	15

SECOND YEAR	
Art 111 — Introduction to Ancient and Medieval Art	4
Art 118 — Drawing II	3
Art 120 — Design II	3
Art 121 — Drawing Theory[3]	2
Natural science	4
Total	16

Home economics elective[2]	2
H. Ec. 183 — Consumer Textiles, or cultural anthropology	2-4
Art 112 — Introduction to Renaissance and Modern Art	4
Art 122 — Drawing Theory[3]	2
Psych. 100 — Introduction to Psychology	3
Elective	2
Total	15-17

THIRD YEAR	
Art 133 — Design Workshop	2
Econ. 108 — Elements of Economics	3
H. Ec. 260 — Interiors and Furniture I	3
Home economics electives[2]	3-4
Electives	3
Total	14-15

Art 134 — Design Workshop	2
H. Ec. 261 — Interiors and Furniture II	3
Home economics 300-level course[4]	3
Soc. 100 — Introduction to Sociology	3
Electives	3-5
Total	14-16

FOURTH YEAR

H. Ec. 262 — Interior Design 3	H. Ec. 263 — Textile Design: Printing 3
Electives 12-14	Home economics 300-level course[4] 3
Total 15-17	Electives 9-11
	Total 15-17

[1] Sp. Com. 111 and 112 may be substituted for Rhet. 105 or 108 and Sp. Com. 101.
[2] Minimum of three home economics courses (100, 200, 300 level) from areas other than housing, interior design, and equipment.
[3] Art 123 may replace Art 121 and 122.
[4] Six hours must be chosen from H. Ec. 361 — Development and Function of Family Housing; H. Ec. 375 — Home Equipment; and H. Ec. 378 — Special Problems in Home Management, Housing, and Interior Design.

CURRICULUM IN RESTAURANT MANAGEMENT

For the degree of Bachelor of Science in Restaurant Management

The curriculum in restaurant management prepares students (both men and women) for managerial positions in restaurants and other commercial food service units. It also gives them basic training for work as purchasing agents, kitchen equipment and layout specialists, food inspectors, and other allied occupations. A total of 126 hours of credit is required for graduation.

Two one-day field trips are required: estimated cost, $15 each trip.

Two summers (a minimum of eight weeks each), or equivalent, of practical restaurant experience are required and must be completed before registering in H. Ec. 355. This experience normally should come at the end of the second and third years.

FIRST YEAR FIRST SEMESTER HOURS	SECOND SEMESTER HOURS
Humanities[2] 3	Chem. 101 — General Chemistry[4] 4
Math. 111 — Algebra, or Math. 112 — College Algebra[1] 3-5	Humanities[2] 3
Psych. 100 — Introduction to Psychology, or Psych. 103 — Human Behavior 3-4	Soc. 100 — Principles of Sociology 3
Sp. Com. 111 — Verbal Communication[3] ..3	Sp. Com. 112 — Verbal Communication[3] ..3
Elective 0-3	Elective 3
Total 14-15	Total 16

SECOND YEAR

Accy. 101 — Principles of Accounting I ...3	Accy. 105 — Principles of Accounting II ...3
Chem. 102 — General Chemistry, or Chem. 103 — General Chemistry. Organic Chemical Studies 4	Physl. 103 — Introduction to Human Physiology 4
Econ. 101 — Introduction to Economics ...4	Electives 9
H. Ec. 132 — Foods and Nutrition 3	Total 16
Elective 3	
Total 17	

[1] Students who make a satisfactory score on the Mathematics Placement Test are exempt from Math. 111 and 112.
[2] A minimum of 6 hours of approved humanities courses is required.
[3] Rhet. 105 or 108, and Sp. Com. 101 may be taken instead of Sp. Com. 111 and 112.
[4] Students who do not make a satisfactory score on the Chemistry Placement Test must take Chem. 100 and have Math. 111 or 112 or equivalent before Chem. 101.

THIRD YEAR

An. S. 109 — Meat Purchasing and Preparation[5] 2
Econ. 240 — Labor Problems 3
H. Ec. 160 — The Home and Its Furnishings,[6] or elective 4
H. Ec. 220 — Principles of Nutrition 3
H. Ec. 231 — Foods 3
Total 15-16

B. Adm. 202 — Principles of Marketing ... 3
B. Adm. 210 — Management and Organizational Behavior, or B. Adm. 247 — Introduction to Management 3
H. Ec. 240 — Quantity Food Production and Service 5
Mcbio. 100 — Introduction to Microbiology 3
Mcbio. 101 — Introduction to Experimental Microbiology 2
Total 16

FOURTH YEAR

An. S. 109 — Meat Purchasing and Preparation[5] 2
B. Adm. 249 — Human Relations 3
H. Ec. 160 — The Home and Its Furnishings,[6] or elective 4
H. Ec. 345 — Institution and Restaurant Management: Food Purchasing and Equipment Selection 3
Electives 4
Total 16

B. Adm. 261 — Summary of Business Law . 3
B.&T.W. 251 — Business and Administrative Communication 3
H. Ec. 350 — Institution and Restaurant Management: Organization and Administration 4
H. Ec. 355 — Specialized Quantity Food Production and Management 3
Elective 3
Total 16

[5] An. S. 109, offered first semester in alternate years.
[6] Special section for restaurant management, offered first semester in alternate years.

CURRICULUM IN VOCATIONAL HOME ECONOMICS EDUCATION

For the degree of Bachelor of Science in Home Economics Education

A minimum of 126 hours is required for graduation. This curriculum prepares its graduates for teaching in consumer and homemaking programs and in occupational home economics programs and leads to recommendation for a state of Illinois secondary school teaching certificate (grades 6-12). Students in this curriculum should consult an adviser in home economics education before enrolling, or during the first semester of attendance.

For teacher education requirements applicable to all curricula, see pages 116 to 119.

General Education Requirements

COMMUNICATIONS **HOURS**

Sp. Com. 111 and 112, or Rhet. 105 and Sp. Com. 101, or Rhet. 108 and Sp. Com. 101 ... 6-7

NATURAL SCIENCES

General chemistry (including organic) 8
Human physiology (including laboratory) 4
Introduction to microbiology (including laboratory) 5
Math. 111 or 112 — College Algebra, or exemption by the Mathematics Placement Test 3-5
Total 20-22

SOCIAL SCIENCES

Econ. 101 — Introduction to Economics 4
History of the United States 3-4
Political science (state and federal constitutions) 3
Psychology 3
Total 13-14

FINE ARTS

Art design 4

HUMANITIES

Selected from College of Agriculture approved courses 6

HEALTH AND/OR PHYSICAL EDUCATION 3

Home Economics Courses

FRESHMAN AND SOPHOMORE COURSES	HOURS
H. Ec. 105 — Child and Family	3
H. Ec. 132 — Foods and Nutrition	3
H. Ec. 133 — Food Management	2
H. Ec. 160 — The Home and Its Furnishings	4
H. Ec. 171 — Home Management	2
H. Ec. 182 — Clothing Laboratory	2
H. Ec. 183 — Consumer Textiles	2
H. Ec. 184 — Apparel Design and Selection	2
Total	20

JUNIOR AND SENIOR COURSES	
H. Ec. 202 — Laboratory in Child Development	2
H. Ec. 210 — Family Relationships	3
H. Ec. 220 — Principles of Nutrition	3
H. Ec. 231 — Foods	3
H. Ec. 273 — Advanced Home Management	3
H. Ec. 286 — Clothing Design: Flat Pattern	3
At least one course chosen from:	
H. Ec. 260 — Interiors and Furniture I[1]	3
H. Ec. 270 — Family Financial Management	3
H. Ec. 361 — Development and Function of Family Housing[2]	3
H. Ec. 375 — Home Equipment	3
At least one 300-level elective chosen from:	
H. Ec. 301 — Advanced Problems in Home Guidance of Children[2]	3
H. Ec. 322 — Physical Growth and Nutrition[1]	2
H. Ec. 330 — Experimental Foods	3
H. Ec. 380 — Advanced Textiles[1]	4
H. Ec. 386 — Clothing Design: Draping[3]	4
Total	22-24

[1] Offered first semester only.
[2] Offered second semester only.
[3] Offered alternate years second semester only.

Professional Education

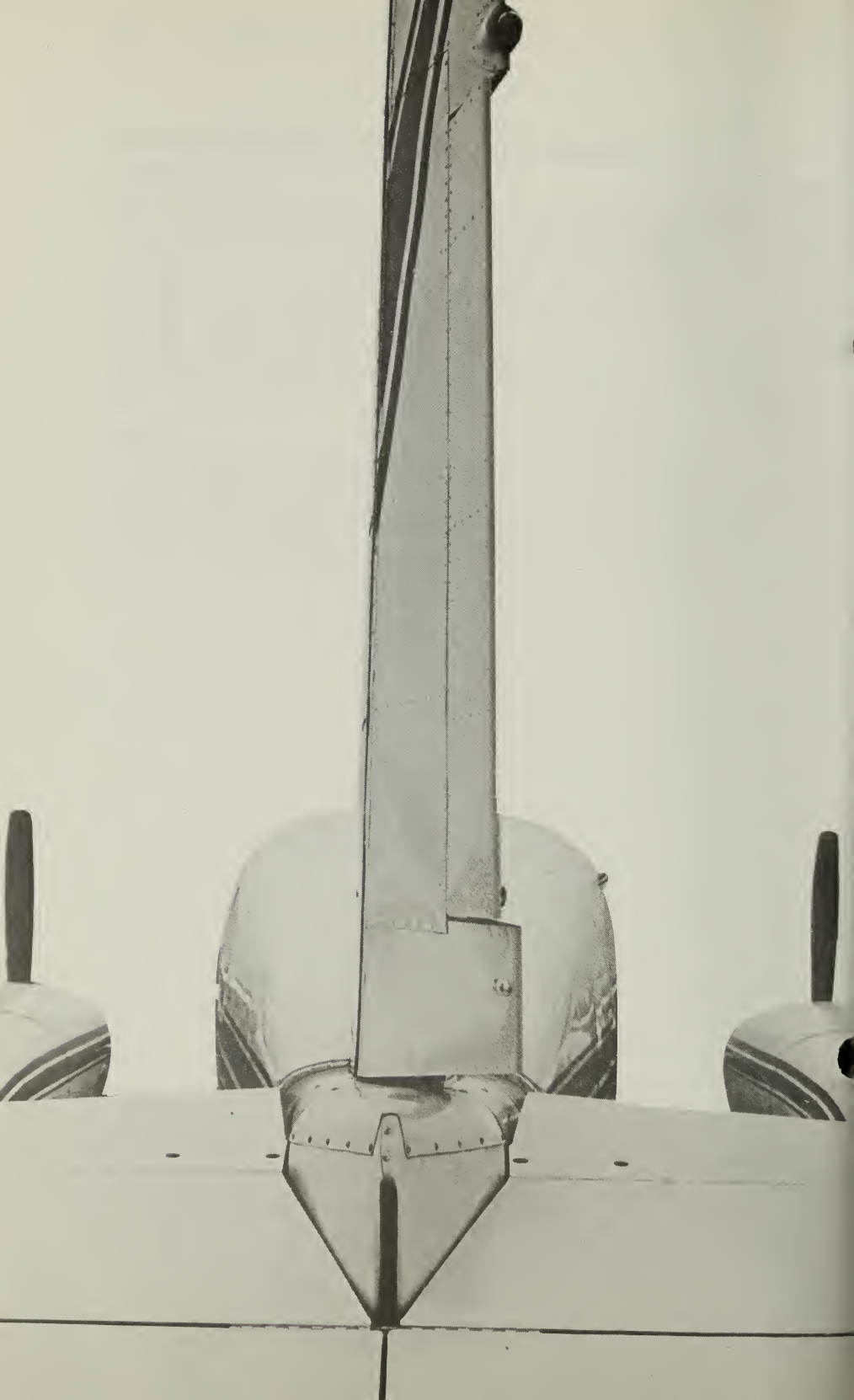
	HOURS
Nature of the teaching profession	2
Principles of vocational and technical education	2
Psychology of teaching and learning	3
History and philosophy of education (educational policy studies)	2
Techniques of teaching consumer education and homemaking for youth and adults	3
Techniques of teaching home economics related occupations for youth and adults	3
Educational practice	5-7
Total	20-22

TEACHER EDUCATION MINOR IN HOME ECONOMICS

REQUIRED COURSES	HOURS
H. Ec. 105 — Child and Family	3
H. Ec. 120 — Elementary Nutrition, and H. Ec. 125 — Food Selection and Preparation; or H. Ec. 132 — Foods and Nutrition, and H. Ec. 133 — Food Management. Credit is not given for H. Ec. 132 and 133 in addition to 120 and 125.	5
H. Ec. 160 — The Home and Its Furnishings	4
H. Ec. 171 — Home Management, or H. Ec. 271 — Home Management	2
H. Ec. 182 — Clothing Laboratory	2
H. Ec. 183 — Consumer Textiles	2
H. Ec. 184 — Clothing Selection. Art 185 must be taken prior to, or concurrently with, this course.	2
Home economics elective	2-3
Total	22-23

ELECTIVES

H. Ec. 202 — Laboratory in Child Development	2
H. Ec. 210 — Family Relationships	3
H. Ec. 231 — Foods	3
H. Ec. 270 — Family Financial Management	3
H. Ec. 280 — Household Textiles	2
H. Ec. 287 — Consumer Clothing Problems	2



Stuart Naft, Chicago, Illinois

INSTITUTE OF AVIATION

University of Illinois at Urbana-Champaign
Willard Airport
Savoy, IL 61874

The Institute of Aviation is responsible for promotion and correlation of education and research activities related to aviation in the University. Its director has the advice and assistance of an executive committee. The institute holds Federal Aviation Administration (FAA) Airman Examining (Pilot) Agency Certificate Number 1, which permits it to issue pilot certificates and ratings to its graduates on behalf of the FAA. Pilot training includes training from the private pilot level to the airline transport pilot.

A two-year aircraft maintenance curriculum prepares students for the FAA mechanic certificate with airframe and powerplant ratings.

The student who wishes to become a professional pilot may elect the combined maintenance-flight program which permits substitution of flight courses for specified maintenance courses in each semester of the aircraft maintenance curriculum, permitting the student to work toward the commercial certificate.

Normally new freshmen are accepted for admission only in August. However, an aspiring professional pilot may begin in the spring semester. Intra-University transfer to the Institute of Aviation may be accomplished as space permits.

Graduating institute students may transfer to any degree-granting division of the University to complete requirements for a degree in that division, usually requiring a minimum of two and one-half additional years. A non–Institute of Aviation student may elect flight courses with the permission of his department, to the extent that space in institute courses is available.

A special fee ranging from $300 to $790 is charged for a course involving flight training in addition to the estimated costs listed in table 2 on page 67.

The institute's Aviation Research Laboratory conducts interdisciplinary research in many areas related to flight problems. The laboratory head for research holds joint professorships in the Departments of Psychology and of Aeronautical and Astronautical Engineering, permitting graduate students in various departments to perform research activities as graduate research assistants.

The institute manages Willard Airport, located six miles southwest of the Urbana-Champaign campus. The airport provides the University and the community with excellent air transportation facilities.

ADMISSION REQUIREMENTS

Applicants must meet general University requirements as well as those specified by the Institute of Aviation listed in the Admissions Chart on page 44. Additional units in physics, mathematics, and social sciences are recommended.

Anyone who does not have the subjects required for admission to the institute may request special review of his application by the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801.

Courses offered by the Institute of Aviation are open to students, faculty, and staff in all departments of the University, subject to limitations imposed by the availability of space and equipment.

Curricula

AIRCRAFT MAINTENANCE CURRICULUM

FIRST YEAR FIRST SEMESTER	HOURS
Avi. 142 — Powerplant Theory	4
Avi. 143 — Aircraft Materials and Processes I	2
Avi. 144 — Powerplant Theory Laboratory	2
Avi. 145 — Aircraft Physics	3
Avi. 153 — Aircraft Materials and Processes II	2
Avi. 154 — Powerplant Systems II	3
Total	16

SECOND SEMESTER	HOURS
Avi. 147 — Introduction to Federal Aviation Regulations	3
Avi. 152 — Aircraft Powerplant Electrical Systems	4
Avi. 155 — Aircraft Mathematics	3
Avi.156 — Powerplant Systems III	3
G.E. 105 — Elements of Drawing	3
Rhet. 105 — Principles of Composition or Rhet. 108 — Forms of Composition	4
Total	20

SECOND YEAR	
Avi. 163 — Aircraft Materials and Processes III	3
Avi. 165 — Aircraft Fabricating Processes I	4
Avi. 167 — Aircraft Fabricating Processes II	2
Avi. 169 — Aircraft Systems I	4
Avi. 170 — Aircraft Systems II	5
Total	18

Avi. 157 — Powerplant Conditioning and Testing	7
Avi. 159 — Powerplant Inspection and Regulations	3
Avi. 172 — Aircraft Systems III	3
Avi. 174 — Aircraft Assembly and Inspection	5
Total	18

COMBINED FLIGHT-MAINTENANCE CURRICULUM[1]

FIRST YEAR FIRST SEMESTER	HOURS
Avi. 101 — Private Pilot	3
Avi. 142 — Powerplant Theory	4
Avi. 143 — Aircraft Materials and Processes I	2
Avi. 144 — Powerplant Theory Laboratory	2
Avi. 145 — Aircraft Physics	3
Avi. 153 — Aircraft Materials and Processes II	2
Total	16

FIRST SUMMER[2]	
Avi. 157 — Powerplant Conditioning and Testing	7
Avi. 159 — Powerplant Inspection and Regulations	3
Total	10

SECOND SEMESTER	HOURS
Avi. 120 — Secondary Flight	3
Avi. 147 — Introduction to Federal Aviation Regulations	3
Avi. 152 — Aircraft Powerplant Electrical Systems	4
Avi. 155 — Aircraft Mathematics	3
Avi. 156 — Powerplant Systems III	3
Rhet. 105 — Principles of Composition or Rhet. 108 — Forms of Composition	4
Total	20

SECOND YEAR

Avi. 130 — Intermediate Flight 3
Avi. 154 — Powerplant Systems II 3
Avi. 163 — Aircraft Materials and Processes III 3
Avi. 165 — Aircraft Fabricating Processes I 4
Avi. 167 — Aircraft Fabricating Processes II 2
Total 15

Avi. 140 — Advanced Flight 3
Avi. 172 — Aircraft Systems III 3
Avi. 174 — Aircraft Assembly and Inspection 5
G.E. 105 — Elements of Drawing 3
Total 14

SECOND SUMMER[2]

Avi. 169 — Aircraft Systems I 4
Avi. 170 — Aircraft Systems II 5
Total 9

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[1] Students register in aircraft maintenance curriculum.

[2] Students who prefer not to attend summer sessions may extend their maintenance and flight training into the third year, electing other subjects as they desire to complete a normal class-hour load.

PROFESSIONAL PILOT CURRICULUM

FIRST YEAR — FIRST SEMESTER	HOURS
Avi. 101 — Private Pilot	3
Biol. 100 — Biological Science[1]	4
Hist. 111 — History of Western Civilization to 1815, or Hist. 151 — History of the United States to 1877[2]	4
Sp. Com. 111 — Verbal Communication	3
Free elective	3
Total	17

SECOND SEMESTER	HOURS
Avi. 120 — Secondary Flight	3
Biol. 101 — Biological Science[1]	4
Hist. 112 — History of Western Civilization, 1815 to the Present, or Hist. 152 — History of the United States, 1877 to the Present[2]	4
Sp. Com. 112 — Verbal Communication	3
Free elective	3
Total	17

SECOND YEAR

Avi. 130 — Intermediate Flight[3] 3
L.A.S. 140 — Thought and Structure in Physical Science[1] 4
Humanities elective[4] 3
Free electives 6
Total 16

Avi. 140 — Advanced Flight[3] 3
L.A.S. 141 — The Physical Universe[1] 4
Humanities elective[4] 3
Free electives 6
Total 16

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[1] L.A.S. 140 and 141 may precede Biol. 100 and 101 at the student's discretion.

[2] Hist. 111 and 112, or Hist. 151 and 152 should be chosen.

[3] Professional pilot students may take Avi. 130 and 140 in the summer following the first year of the curriculum, in which case they are free to elect advanced flight courses (Avi. 200, 210, 220, 250, 280) in the second year of the curriculum and in the following summer session. Such programs are planned on an individual basis.

[4] Humanities electives should be chosen to comply with University general education requirements.

Ann Casady, Chicago, Illinois

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

University of Illinois at Urbana-Champaign
214 David Kinley Hall
Urbana, IL 61801

The purpose of the College of Commerce and Business Administration is to provide educational experience that will help students develop their potentialities for leadership and service in business, in government, and in teaching and research. The undergraduate curricula provide a study of the basic aspects of business and preparation for careers in fields such as accounting, business management, banking, insurance, and marketing. Students should, however, expect to serve an apprenticeship in the fields they enter if they aspire to higher positions.

The curricula, leading to the Bachelor of Science degree in one of the various degree programs in business and economics, are based on four years of college work. Students are required to elect courses in other colleges of the University including mathematics, rhetoric, literature, speech, and social sciences and to secure as liberal an education as possible to avoid the narrowing effects of overspecialization. Through a cooperative arrangement with the College of Liberal Arts and Sciences students in that college may major in economics or finance.

The college offers graduate and professional programs to students with a bachelor's degree in one of the areas of business and economics, or in a nonbusiness area such as liberal arts, science, or engineering. Detailed information on graduate programs may be obtained from the Graduate College.

DEPARTMENTS AND CURRICULA

Undergraduate instruction in the College of Commerce and Business Administration is organized under the Departments of Accountancy, Business Administration, Economics, and Finance. Each of these departments offers courses that provide a field of concentration a student may elect. These curricula lead to Bachelor of Science degrees in one of the various fields of study in the college and are designed to encourage each student to fully develop his intellectual capacity. Each curriculum introduces the student to each major subject area in the college and provides him with the opportunity to major in the area of his choice.

ADMISSION REQUIREMENTS

Applicants must meet general University requirements as well as those specified by the College of Commerce and Business Administration listed in the Admissions Chart on page 45.

Students transferring from other colleges will not be excused from the entrance requirements unless they have demonstrated proficiency in the areas in which they are deficient.

Mathematics Placement Test

Students without college credit in algebra are required to take the Mathematics Placement Test before registering in the college. The results of the test are used to place the student in Math. 111 or 112 or to exempt him from college algebra and allow him to enroll in Math. 124 or equivalent which is required for graduation.

The student who enters with college credit in algebra may proceed directly to courses beyond college algebra required by the college for graduation.

HONORS PROGRAMS

Honors at Graduation

Honors awarded to superior students at graduation are designated on the diploma as follows: for graduation with Honors, a minimum 4.25 grade-point average in all courses accepted toward the student's degree; for graduation with High Honors, a minimum 4.5 grade-point average in all courses accepted toward his degree; and for graduation with Highest Honors, a minimum 4.75 (A = 5.0) grade-point average in all courses accepted toward his degree.

Edmund J. James Scholars

For information regarding the James Scholar Program see page 55.

Dean's List

At the end of each semester the Dean's List is announced, naming those students who have achieved a 4.0 grade-point average or above.

Superior academic achievement is recognized in other ways by the University through the Bronze Tablet.

Further information concerning honors programs may be obtained from the *College of Commerce and Business Administration Undergraduate Programs* catalog or by writing to the Undergraduate Office, College of Commerce and Business Administration, University of Illinois at Urbana-Champaign, 214 David Kinley Hall, Urbana, Illinois 61801. See also Academic Honors on page 101.

Awards

Alpha Kappa Psi Scholarship Medallion. Epsilon chapter of Alpha Kappa Psi, a professional fraternity in commerce, annually awards a scholarship medallion and $25 to a male student pursuing a curriculum in the College of Commerce and Business Administration. The recipient must be a student in the senior class who has completed three full years of academic work in the college; his scholastic grade-point average for the first six semesters in the college must be at least 4.5 (A = 5.0); he must be active in various campus organizations as evidenced by recommendations from the faculty advisers of the respective activities; he must possess qualities of leadership as demonstrated by offices held in the various organizations and by successful completion of beneficial projects under his responsibility; he must have commendable personality as judged by a commerce faculty board appointed by the local chapter of Alpha Kappa Psi to administer the award. The name of the winner is engraved on a scholarship tablet on display in David Kinley Hall.

Delta Sigma Pi Key. The Illinois chapter of Delta Sigma Pi, professional fraternity, annually awards a key to the male student graduating from the College of Commerce and Business Administration with the highest four-year scholastic average.

Haskins and Sells Foundation Award. The Haskins and Sells Foundation has established an annual award of $500 for a junior student majoring in accounting who is selected by a committee of the faculty on the basis of demonstrated excellence in accounting.

GRADUATION REQUIREMENTS

Students in the College of Commerce and Business Administration who meet the University's requirements with reference to registration, residence, and fees, and who maintain satisfactory scholastic records in the college, are awarded degrees appropriate to their curricula.

Each candidate for a degree must have a 3.0 (A = 5.0) grade-point average or above for all courses counted toward graduation, a 3.0 grade-point average or above for all courses taken at this University, and a 3.0 grade-point average or above for all courses taken in the field of concentration.

Each student may select only one major field of concentration.

Continuing students advance enroll for the following semester in November and April of each academic year. New students may advance enroll during the summer for each fall semester. Information may be obtained from the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801.

Faculty advisers are available during the registration period each semester to help students plan their academic programs.

Students are responsible for meeting the requirements for graduation. Therefore, each student should familiarize himself with the requirements listed in this catalog and should refer to them each time he plans his program.

GENERAL EDUCATION SEQUENCE REQUIREMENTS

Students must complete at least one sequence from each of the following lists. The following regulations apply:

- The behavioral science sequence (list 2) should be started not later than the sophomore year. Business administration majors must select the sequence of Psych. 100 and 201.
- Two or more courses in the general education sequences (lists 1 through 4) must be selected from 200- and 300-level courses.

- Substitution of other courses in the listed sequences must be approved by one of the deans in the Undergraduate Office, College of Commerce and Business Administration, University of Illinois at Urbana-Champaign, 214 David Kinley Hall, Urbana, Illinois 61801.
- General education sequence courses and the advanced rhetoric course may be taken under the pass-fail option.

LIST 1: FOREIGN LANGUAGE, HUMANITIES, NATURAL SCIENCE

Art 116, Music 130, 131
Art 111, 112, and Music 113 or 115
Astr. 101, 102
Biol. 100, 101
Bot. 100, Zool. 104
Chem. 107, 108
Chem. 101, 102
Entom. 103, Physl. 103
Entom. 103, Zool. 104
Foreign language: 8-hour sequence in any language (intermediate or above)
Geog. 102, 103
Geol. 101, 102
Human. 151, 152
Human. 211, 212
Human. 215, 216
L.A.S. 140, 141
Math. 140, 141, or 145, and any 300-level course (excluding 305, 306, and 307)
Phil.: at least 8 hours
Phycs. 101, 102
Phycs. 106, 107

LIST 2: BEHAVIORAL SCIENCE

Anth. 103, 260
Psych. 100 and 200- or 300-level course in psychology (Psych. 201 recommended)
Soc. 100 and any two 200- or 300-level courses in sociology
(Students majoring in business administration must select sequence in psychology.)

LIST 3: HISTORY OR POLITICAL SCIENCE

Hist. 111 and 112 or Hist. 151 and 152, or any two of Hist. 305, 306, 309, 310, 311, 312, 313, and 314
Hist. 131, 132, or any two of Hist. 332, 333, 334, 341, and 342
Hist. 260, 261, 262 (any two) or any two of Hist. 352, 354, 355, 356, 359, 360, 361, 362, 375, and 376
Hist. 181, 182 or any two of Hist. 381, 382, 383, 384
Hist. 191, 192 or any two of Hist. 307, 308, 387, 388, 391, 392, 394, 395, and 396
Hist. 211, 212
Hist. 320, 321, 327, 328, 329, 330 (any two)
Pol. S.: any two courses of 3 or more hours each

LIST 4: LITERATURE

Six hours of literature.

MATHEMATICS REQUIREMENT

Any of the following sequences meet the College of Commerce and Business Administration requirement: Math. 135 (5 semester hours); Math. 120, 130 (10 semester hours); Math. 120, 131 (8 semester hours); Math. 124, 134 (7 semester hours).

New students at this time need only select which mathematics sequence to enter. Decisions on how far to go in a sequence can be made later as the student gains experience and firms up career objectives.

The most appropriate mathematics sequence for a student depends on his background, interest, motivation, and objectives. Background can be evaluated in terms of mathematics courses already completed and the student's score on the Mathematics Placement Test. Interest, motivation, and objectives must be determined by the student. Three basic sequences are open to the student. They are:

- Math. 135. A demanding course requiring a previous analytical geometry course. Should be chosen by students whose interests and objectives require strong mathematics.

- Math. 120, 130, or Math. 120, 131. These sequences are appropriate for students whose background is good but who have not had analytical geometry or who feel a somewhat less demanding sequence is preferable.
- Math. 124, 134. This sequence provides the student with a good background but since the pace is slower it may not sufficiently challenge the very good or previously well-prepared student.

Curricula

Normally students must register for not less than 12 hours nor more than 18 hours in each semester. Students should take mathematics, economics, and accountancy courses in the semesters indicated in the sample schedule of courses. The computer science course must be taken during the first year. A required course that is failed must be repeated the following semester.

A student with less than 30 hours of credit is required to have his program for the semester approved by a faculty adviser.

Up to 4 hours of credit in basic physical education may be counted in the 124 hours necessary for graduation. Physical education grades are counted in the graduation grade-point average.

UNIVERSITY REQUIREMENTS	HOURS
Rhet. 105 or 108 — Composition[1]	4
GENERAL EDUCATION REQUIREMENTS	
Business and technical writing or advanced rhetoric	3
Sp. Com. 101 — Principles of Effective Speaking	3
General education sequences	
List 1 — Foreign language, humanities, mathematics, natural science	8
List 2 — Behavioral science	6
List 3 — History or political science	6
List 4 — Literature	6
BUSINESS CORE REQUIREMENTS	
Accy. 101, 105 — Principles of Accounting	6
B. Adm. 200 — Legal Environment of Business	3
B. Adm. 210 — Management and Organizational Behavior	3
B. Adm. 202 — Principles of Marketing	3
C.S. 105 — Introduction to Computers	3
Econ. 101 — Introduction to Economics	4
Econ. 172, 173 — Quantitative Methods	6
Fin. 254 — Business Financial Management	3
Math. 124, 134 — Introductory Analysis for Social Scientists[2]	7
MAJOR	
Courses to yield a total of	18-24
ELECTIVES[3]	
To yield a total of	124

[1] Sp. Com. 111 and 112 may be substituted for Rhet. 105 or 108 and Sp. Com. 101.

[2] Math. 135, or Math. 120 and 130, or Math. 120 and 131 may be substituted for Math. 124 and 134. (See college Mathematics Requirement on page 176.)

[3] All general education requirements (except Sp. Com. 101) and all electives may be taken under the pass-fail option.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 101	4	Math. 134	4
Math. 124	3	Adv. Rhet.	3
C.S. 105	3	Sp. Com. 101	3
Rhet. 105 or 108	4	General education sequence	6
Total	14	Total	16
SECOND YEAR			
Accy. 101	3	Accy. 105	3
Econ. 172	3	Econ. 173.	3
General education sequence list 2	3	General education sequence	6
General education sequence list 1, 3, 4	7	Major or elective	3
Total	16	Total	15
THIRD YEAR			
Fin. 254	3	B. Adm. 200	3
B. Adm. 210	3	Major and electives	9
B. Adm. 202	3	General education sequence	4
Major or elective	3	Total	16
General education sequence	4		
Total	16		
FOURTH YEAR			
Major and electives	13	Major and electives	13
General education sequence	3	General education sequence	3
Total	16	Total	16

CURRICULUM IN ACCOUNTANCY

For the degree of Bachelor of Science in Accountancy

Accountancy is usually selected as a major by the student who is preparing for private, governmental, or public accounting, or who wishes to use accountancy as general training for a career in business.

In private accounting, the accountant's employment is limited to a single organization. The size and nature of the organization determines the scope of the accounting activities but, broadly defined, the following duties are illustrative: design and installation of accounting systems, preparation of financial statements and reports, cost accounting, internal auditing, interpretation and analysis of budgets, and preparation of tax returns.

Governmental accounting deals with accounting principles, standards, and procedures applicable to state and local governments and to institutions such as universities and hospitals.

Public accounting is concerned primarily with the audit of the financial statements of business enterprises and institutions for the purpose of expressing an opinion as to the fairness of the information presented. The public accountant may be called upon to render services to clients which transcend the expression of an opinion on financial statements. These services include the areas of management consulting and tax service.

Requirements for the degree are: Accy. 208, Accy. 266, Econ. 300, and five additional accountancy courses. Accy. 199, up to 4 hours, may count as one course. Additional credit in Accy. 199 will be allowed only with the permission of the department head.

Econ. 300 and accountancy courses may not be taken on a pass-fail basis. A limit of 33 hours of accountancy courses may be counted towards the Bachelor of Science degree in accountancy.

CURRICULUM IN BUSINESS ADMINISTRATION

For the degree of Bachelor of Science in Business Administration

The Department of Business Administration offers three separate undergraduate programs: marketing, organizational administration, and production. Marketing encompasses those business activities directly related to the process of placing meaningful assortments of goods and services in the hands of the consumer. The marketing student is concerned with the efficient performance of marketing activities and with their effective coordination with the other operations of the firm. Organizational administration is concerned primarily with the effective utilization of human resources within the business organization. Attention is focused on the organization as a social system and the forces that affect this system such as the behavior of individuals and groups, economic conditions, and technology. The study of production is concerned primarily with the efficient utilization of the organization's material resources. Attention is focused on the design and improvement of productive capacity and the coordination of the production process with other system activities.

Requirements for the degree are: B. Adm. 321 — Organizational Behavior, B. Adm. 374 — Operations Research, B. Adm. 389 — Business Policy, and one of the following concentrations.

MARKETING

A student must take B. Adm. 320 — Marketing Research, and B. Adm. 344 — Consumer Behavior, plus one of the following courses:

B. Adm. 212 — Retail Management
Adv. 383 — Advertising Media Policy and Strategy
Adv. 384 — Advertising Campaigns
B. Adm. 337 — Promotion Management
B. Adm. 352 — Pricing Policies
B. Adm. 370 — International Marketing
B. Adm. 360 — Business Logistics
B. Adm. 380 — Management Science in Marketing

ORGANIZATIONAL ADMINISTRATION

A student must take three courses from the following list, one of which must be B. Adm. 323 or 351:

B. Adm. 323 — Industrial Social Systems II
B. Adm. 351 — Personnel Administration
L.I.R. 345 — Economics of Manpower
Pol. S. 361 — Introduction to Public Administration
Pol. S. 362 — Administrative Organization and Policy Development
Psych. 355 — Industrial Social Psychology
Psych. 357 — Psychology of Industrial Conflict
Soc. 318 — Industry and Society
Soc. 359 — The Social Psychology of Organization

PRODUCTION

A student must take B. Adm. 314 — Production, and B. Adm. 315 — Management in Manufacturing, plus one of the following courses:

Accy. 336 — Managerial Accounting and Quantitative Techniques
B. Adm. 323 — Industrial Social Systems II
B. Adm. 351 — Personnel Administration
I.E. 286 — Operations Analysis
Psych. 258 — Human Performance in Man-Machine Systems
Psych. 356 — Human Factors in Equipment Design

MANAGEMENT SCIENCE

A student may satisfy this option by taking any three courses approved in advance by the department head. Recommended sequences among the mathematics courses are 315, 357; 315, 383; 361 or 363, 366. Selected courses include:

B. Adm. 373 — Electronic Data Processing for Business
B. Adm. 380 — Management Science in Marketing
Accy. 366 — Managerial Accounting and Quantitative Techniques
Math. 315 — Linear Transformations and Matrices
Math. 357 — Mathematical Models in the Social Sciences
Math. 361 — Theory of Probability I
Math. 363 — Advanced Statistics I
Math. 364 — Advanced Statistics II
Math. 366 — Theory of Probability
Math. 383 — Linear Programming

Students wishing to concentrate in production or management science are advised (not required) to take in fulfilling the college mathematics requirement either Math. 120, 130; Math. 135, 145; or Math. 124, 134, 141 (special section).

Students must select Psych. 100 and 201 from list 2.

B. Adm. 389 should, if possible, be taken after all requirements in the concentration have been satisfied.

Courses used to fulfill major requirements may not be taken on a pass-fail basis.

Beyond the required courses for the business core and major, no more than 12 of the 28 elective hours can be selected from business administration, accountancy, or finance.

CURRICULUM IN ECONOMICS

For the degree of Bachelor of Science in Economics

Economics has been described as the study of how men use limited resources to produce various commodities and to distribute them to members of society for their consumption. Accordingly, the economist is concerned with what is produced, how goods and services are distributed, the organization of industries, the labor supply and its use, international trade, the production and distribution of national income and wealth, government finance, and the use and conservation of land and natural resources.

Related options for specialization by the student within this major are economic development, economic history, economic theory, economics of transportation, government and economic activity, international economics, labor economics, and quantitative economics.

Career opportunities available to students who major in economics include management positions in business, industry, and government; research; technical writing; and teaching.

Requirements for the degree are: Econ. 300 and 301, and 12 additional hours of economics. (See General Education Sequence Requirements on page 175.)

Students are advised but not required to take one of the following mathematics sequences: Math. 120, 130, 140; Math. 120, 131, 141; or Math. 135, 145. In addition, students considering graduate work should take Math. 315.

No course used to fulfill major requirements can be taken on a pass-fail basis.

CURRICULUM IN FINANCE

For the degree of Bachelor of Science in Finance

The field of finance is primarily concerned with the acquisition of capital funds for business, public, or personal use. A new business, for example, must secure sufficient

funds to initiate and maintain operations until the cash flow from sales is great enough to maintain capital requirements. Established businesses seek financial advice when considering the purchase of new equipment, the selection of a new plant location, or the expansion of present facilities. Business policy decisions which result in changes in the capital structure of the business are of special importance to finance.

A student who majors in finance may specialize in finance, investment, and banking; insurance and risk management; or real estate and urban land economics.

As the study of finance is designed to provide the student with both the theoretical background and the analytical tools required to make effective judgments in finance, many students select careers in business financial management, commercial or investment banking, government finance, insurance, or real estate.

Requirements for the degree are: Fin. 150, and one of the following concentrations.

FINANCE, INVESTMENT, AND BANKING

Econ. 301
Three of Fin. 230, 235, 252, 253, 255, 258, 280, 340, 357
One of Accy. 274, 362, 376, B. Adm. 301, 374, Econ. 312, 328, 335

INSURANCE AND RISK MANAGEMENT

Fin. 260
Three of Fin. 262, 360, 363, 370, 371
One of Accy. 274, Econ. 301, 315, Fin. 294, 295, Math. 371, 372

REAL ESTATE AND URBAN ECONOMICS

Fin. 364
Fin. 365
Fin. 366
Two of Arch. 379, Econ. 301, 360, Fin. 367, Geog. 366, Psych. 369, Soc. 276, U.P. 171

Fin. 230, 280, and 235 were previously numbered Fin. 259, 350, and 359 respectively.

TEACHER EDUCATION MINOR IN ACCOUNTANCY FOR NONCOMMERCE MAJORS

REQUIRED COURSES	HOURS
Accy. 101 — Principles of Accounting I	3
Accy. 105 — Principles of Accounting II	3
Accy. 208 — Intermediate Accounting	4
Electives	11-12
Total	21-22

ELECTIVES

Accy. 266 — Cost Accounting	3
Accy. 274 — Basic Federal Income Tax Accounting	3
Accy. 376 — Advanced Accounting	2
Accy. 366 — Managerial Accounting and Quantitative Techniques	3
Econ. 108 — Elements of Economics	3-4
B. Adm. 200 — Legal Environment of Business	3
One of the following:	
B. Adm. 202 — Principles of Marketing	3
B. Adm. 302 — Wills, Estates, and Trusts	3

TEACHER EDUCATION MINOR IN ECONOMICS EDUCATION FOR NONCOMMERCE MAJORS

Business education majors may also elect this minor. The same courses may not count as fulfilling both major and minor requirements.

REQUIRED COURSES	HOURS
Econ. 102 and 103 — Principles of Economics, or Econ. 108 — Elements of Economics and Econ. 103 (special section)	6
Econ. 313 — Economics of Consumption, or H. Ec. 271 — Home Management	2-3
Fin. 150 — Money, Credit, and Banking, or Fin. 257 — Corporation Finance, or Fin. 260 — Economics of Insurance	3
Electives	9
Total	20-21

ELECTIVES

Econ. 214 — Government Finance and Taxation	3
Econ. 240 — Labor Problems	3
Econ. 255 — Comparative Economic Systems	3
Fin. 150 — Money, Credit, and Banking	3
Fin. 257 — Corporation Finance	3
Fin. 230 — Investment Principles	3
Fin. 260 — Economics of Insurance	3
H. Ec. 271 — Home Management	2

COLLEGE OF COMMUNICATIONS

University of Illinois at Urbana-Champaign
119 Gregory Hall
Urbana, IL 61801

For students with two years of college and a commitment to a career in communications, the College of Communications offers an additional two years of education leading to the degrees of Bachelor of Science in Advertising, Journalism, and Radio and Television.

Through its educational programs, the college aims at giving students professional competence in their chosen fields of communications. At the same time, it seeks to help them acquire a solid background in the social sciences and humanities. Its premise is that students need an understanding of people and the world they live in if they are to communicate effectively through print and broadcast media.

Although its three curricula are somewhat specialized, the college seeks to equip its students with a general professional education that will give them flexibility when they enter the field.

The college has modern equipment and facilities for teaching future communications workers — newsrooms, a photographic darkroom, a typography laboratory, an advertising layout laboratory, a radio newsroom, and broadcasting studios. Television students use the facilities of WILL-TV (Channel 12) for laboratory instruction. The Communications Library is generally recognized as one of the best in the nation. The college maintains a job placement service for its graduates.

The college is also the supervising administrative unit for the University Broadcasting Division and the Institute of Communications Research.

Instruction in journalism at the University was begun in 1902 as part of the courses in rhetoric and was organized as a division of the Department of English in 1916. The School of Journalism was established in 1927 as a separate unit. In 1950 it became the School of Journalism and Communications with divisions of journalism, advertising, and radio, the last of which later added instruction in television. In 1957, the school was elevated to college status. Two years later the college's three divisions were redesignated departments. The present name — College of Communications — was adopted in 1968.

DEPARTMENTS AND CURRICULA

Through its three academic departments the college offers professional education in three sequences which have been accredited by the American Council on Education for Journalism — advertising, news-editorial, and radio and television.

The Department of Advertising supervises work in the advertising curriculum for students expecting to enter advertising agencies or the advertising departments of communications media, industrial organizations, or retail stores. The department aims to train analytical, flexible, and creative professionals who are able to deal with current and future advertising problems.

Through its news-editorial curriculum the Department of Journalism tries to prepare students for varied and long-term careers in journalism. The primary professional aim of the program is to train public affairs reporters by providing them with the skills, knowledge, and understanding required of successful journalists.

The Department of Radio and Television seeks to prepare students for careers in broadcasting through the radio and television curriculum. While acquiring professional broadcasting competence in production, creation, and management, students must also acquire a thorough education in the social sciences and humanities.

Each of the departments offers graduate programs leading to the degrees of Master of Science in Advertising, Journalism, and Radio and Television. The college offers an interdisciplinary program leading to the Doctor of Philosophy in Communications under the direction of the Institute of Communications Research.

ADMISSION REQUIREMENTS

For admission to the College of Communications a student must complete 60 semester hours of undergraduate college work and present a grade-point average of at least 4.0 (A=5.0) and evidence of interest in a professional career in communications. Applicants with less than a 4.0 will be considered if they demonstrate strong career motivation and aptitude.

Since they must have junior standing to be eligible to enter the College of Communications, students at the University of Illinois at Urbana-Champaign are advised to register as freshmen and sophomores in the general curriculum of the College of Liberal Arts and Sciences and follow a broad general education program. Students at other institutions should follow similar programs.

There is no formal precommunications program. While in another college, a student is expected to follow the requirements of that college. However, students should attempt to satisfy the University general education sequence requirements. If possible they should include in their programs basic courses in such fields as economics, English, history, philosophy, political science, psychology, sociology, and anthropology. Students who do not have a reasonable degree of typing ability must acquire such skill before entering the college as it is required in all three curricula.

Students at the University of Illinois at Urbana-Champaign should make arrangements to apply for transfer into the college during the advance enrollment period in the semester in which they will earn junior standing. Junior standing is necessary for students to take courses offered by the College of Communications.

Students completing their freshman and sophomore studies at institutions other than the University of Illinois are strongly advised to defer courses in advertising, communications, journalism, and radio and television until enrolled in the College of Communications. Transfer students must take all of their required professional courses in the College of Communications. They may be permitted to transfer up to 9 hours of elective professional courses taken elsewhere, provided they take an equivalent number of additional hours in advanced social studies, arts, and sciences beyond the 20 semester hours required for graduation from the college.

The college does not recommend that students with more than 90 hours enter any of its undergraduate programs. A minimum of three semesters of study is re-

quired to complete the requirements of its three curricula. The college does not accept students classified by the University as irregular (students who have already received a bachelor's degree).

HONORS PROGRAMS

Edmund J. James Scholars

The College of Communications does not have an honors program. However, students who transfer into the College of Communications from another college on the Urbana-Champaign campus and are James Scholars in their previous colleges at the time of transfer will continue to be listed as James Scholars in the College of Communications through the end of their first spring semester in the college. If they have a cumulative average of 4.5 (A = 5.0) at that time they will be certified as James Scholars for the academic year and continued as James Scholars through the next academic year when their records will be reviewed for certification. Any student whose cumulative average falls below 4.5 will not be certified and will be removed from the James Scholars listing. Designation as James Scholars is available only to those students who were previously so designated.

Dean's List

To be eligible for Dean's List recognition students must rank in the top 20 percent of their respective classes and must successfully complete 14 academic hours of which at least 12 hours must be traditionally graded hours (excluding course work graded pass-fail, credit/no credit, satisfactory/unsatisfactory, excused, or deferred) and excluding grades and hours in basic physical education courses and religious foundation courses.

Honors at Graduation

For graduation with Honors, a student must obtain a grade-point average of 4.35 in all courses taken after admission to the College of Communications; for graduation with High Honors, 4.75 is required. Students who have not completed their senior year in residence are not usually considered for these honors. These rules are currently being revised.

Kappa Tau Alpha

Each year scholastically high-ranking undergraduate and graduate students in the College of Communications are considered for membership in Kappa Tau Alpha, national honorary society in journalism. The society was founded to recognize and promote scholarship in advertising, journalism, and broadcasting.

Awards

Donald E. Brown Award. An award sponsored by the Illinois News Broadcasters Association is given every third year to an outstanding student in radio-television news reporting.

Communications Alumni Memorial Award. An award of $200 to an outstanding student in the College of Communications for scholarship, character, and professional achievement as demonstrated during the junior year.

Dudley McAllister Memorial Award. An award of $100 is made annually to the student in the College of Communications giving evidence of the most promise in the reporting of public affairs.

Harold Gustave Roettger Memorial Award. An award is made annually to an out-

standing graduating senior in communications who is a member of the journalism honorary fraternity, Kappa Tau Alpha. The award is based on academic record.

St. Louis Advertising Club Award. Each year two outstanding students in the advertising program, one man and one woman, are selected for an award by the St. Louis Advertising Club. The students so honored are chosen on the basis of scholarship, advertising aptitude, and citizenship.

Raymond O. Torr Memorial Award. An award of $100 is given to a student in journalism.

GRADUATION REQUIREMENTS

The college offers three programs of study leading to the degree of Bachelor of Science in Advertising, Journalism, or Radio and Television. To meet the degree requirements all students must satisfy general University requirements as to registration, residence, scholarship, and fees. They must complete the rhetoric requirement and approved sequences in the humanities, social sciences, and natural sciences as listed under General Education Sequence Requirements on page 178. All students must also fulfill the following general requirements of the College of Communications:

- Complete a total of 124 semester hours of course credit. Basic physical education activity courses and basic courses in military, naval, or air force science may not be counted toward this total although such credits may be counted toward meeting the admission requirement of 60 semester hours.
- Complete not less than 30 hours but not more than 36 hours in courses offered by the college in advertising, journalism, and radio and television. Undergraduate courses cross-listed with advertising, journalism, or radio and television courses are considered college course offerings. Undergraduate communications courses cross-listed only with departments outside the college are not counted as college offerings.
- Complete not less than 20 hours in advanced (200- and 300-level) courses at the University of Illinois at Urbana-Champaign in the social studies, arts, and sciences approved by the faculty. The home economics minor may be substituted for the requirement of 20 hours in advanced social studies, arts, and sciences.
- Complete the specific requirements of one of the three curricula offered by the college as listed starting below.
- Earn a grade-point average of 3.0 (A=5.0) in all courses presented for the degree. In addition students must earn a 3.0 for all courses taken while registered in the college.

GENERAL EDUCATION SEQUENCE REQUIREMENTS

To be graduated from the College of Communications a student must have completed a minimum of 6 hours each in the humanities, the social sciences, and the natural sciences. The following sequences have been approved. A student may not use sequences from any one department to satisfy the requirement in more than one of these fields. Any substitutions of sequences must be approved by the dean of the college.

The college will waive the requirements in any of these three areas if the student's performance in the College Level Examination Program earned such a waiver in the college from which the student transferred into the College of Communications. However, only credit hours earned in the social sciences and humanities, up to a maximum of 12, will be allowed toward the graduation requirement of 124 hours. Credit hours in natural science will not be allowed.

HUMANITIES

Any one of the following sequences: Phil. 101, 102; Engl. 101, 102, or 103 (any two); Engl. 115, 116; Human. 151, 152; an 8-hour sequence in one foreign language (intermediate level or above); or any sequence or course work approved by another college in the University, if the student completed or started the sequence while enrolled in that college.

SOCIAL SCIENCES

Any one of the following sequences: Anth. 102, 103; Econ. 101-235; Hist. 111, 112; 131, 132; 151, 152; Phil. 103, 104; Pol. S. 150, 151; 191, 192; Psych. 100, 201; or any sequence or course work approved by any other college in the University, if the student completed or started the sequence while enrolled in that college.

NATURAL SCIENCES

Any one of the following sequences: Biol. 100, 101; L.A.S. 140, 141; Zool. 104, Bot. 100; Zool. 104, Physl. 103; Zool. 104, Entom. 103; Bot. 100, Entom. 103; Astr. 101, 102; any 6 hours of chemistry, or any 6 hours of mathematics, exclusive of Math. 101, 104, 111, 112, and 114, or any 6 hours of physics; or any sequence or course work approved by any other college in the University, if the student completed or started the sequence while enrolled in that college.

Curricula

CURRICULUM IN ADVERTISING

For the degree of Bachelor of Science in Advertising

To be graduated from the advertising curriculum, a student must meet the general requirements for a degree listed under Graduation Requirements on page 188 and must complete the following courses:

	HOURS
Adv. 281 — Introduction to Advertising	3
Adv. 381 — Advertising Research Methods	3
Adv. 382 — Advertising Creative Strategy and Tactics	3
Adv. 383 — Advertising Media Strategy and Tactics	3
Adv. 391 — Advertising Management: Planning	3
Adv. 392 — Advertising Management: Strategy and Tactics	3
Adv. 393 — Advertising in Contemporary Society	3
Advertising, journalism, or radio-TV electives	9
Total	30
A specified course in statistical methods	3-4
Econ. 101— Introduction to Economics	4
B. Adm. 202 — Principles of Marketing[1]	3
Psych. 100 — Introduction to Psychology, Soc. 100 — Introduction to Sociology, or Anth. 103 — Introduction to Cultural Anthropology (any two of these three courses)	6-7

[1] This course may be credited toward the 20 hours of advanced social studies required of all students.

CURRICULUM IN NEWS-EDITORIAL

For the degree of Bachelor of Science in Journalism

To be graduated from the news-editorial curriculum of the Department of Journalism a student must meet the general University and college requirements for a degree listed on page 188 and must complete the following courses:

	HOURS
Journ. 350 — Journalism I	4
Journ. 360 — Journalism II	4
Journ. 370 — Journalism III	3
Journ. 380 — Journalism IV	3
Journ. 390 — Journalism V	2
Journ. 217 — History of Communications; Journ. 218 — Communications and Public Opinion; Journ. 220 — Processes and Systems of Communications; Journ. 231 — Mass Communications in a Democratic Society; Journ. 241 — Law and Communications; or Journ. 251 — Social Aspects of Mass Communications. (A minimum of two courses from this list.)	6
Advertising, journalism, or radio-TV electives	8
Total	30
At least 6 hours of credit in each of the following areas: economics, English or American literature, history, philosophy, political science, and sociology or anthropology[1]	36

[1] Courses taken in these fields to fulfill the college requirement of 20 hours of advanced social studies, arts, and sciences may be used toward fulfilling these departmental requirements as may lower division courses or sequences in these fields taken anytime during the student's four years. Undergraduate seminar (199) courses and hours earned through CLEP may not be used to fulfill these departmental requirements.

CURRICULUM IN RADIO AND TELEVISION

For the degree of Bachelor of Science in Radio and Television

To be graduated from the radio and television curriculum, a student must meet the general requirements for a degree listed on page 188 and must complete the following courses:

	HOURS
Adv. 281 — Introduction to Advertising	3
R. TV 252 — Television Laboratory	3
R. TV 261 — Principles of Radio and Television Broadcasting	2
R. TV 368 — Radio and Television Regulation	2
Advertising, journalism, or radio-TV electives including at least 8 hours in radio-TV courses	20
Total	30

MINORS

Students in the College of Communications are not required to complete a minor. Students with special interests in home economics may elect to follow a special minor as listed below. The home economics minor may be substituted for the college requirement of 20 hours of advanced social studies, arts, and sciences.

For students not enrolled in the College of Communications, the college offers only one approved special minor, a minor in the teaching of journalism for students in teacher education. Other students are cautioned against attempting to follow a minor in advertising, journalism, or radio and television even if approved by their major departments. Enrollment in many courses offered by the college is restricted to majors in one of the college's three curricula. In all college courses enrollment priority is given to majors.

Minor in Home Economics for Majors in This College

For a minor in home economics, the student must complete a minimum of 20 hours in home economics, including at least 6 hours of required courses as indicated on page 191. The 20 hours in home economics courses may be substituted for the 20

hours of advanced social studies required by the college for graduation. However, all students in the news-editorial curriculum must satisfy the departmental requirement of at least 6 hours each in history, political science, philosophy, economics, sociology or anthropology, and English or American literature. These courses may be at the lower or upper division level.

REQUIRED COURSES	HOURS
H. Ec. 120 — Contemporary Nutrition, or H. Ec. 132 — Foods and Nutrition	2-3
Credit is not given in H. Ec. 132 and 133 in addition to H. Ec. 120 and 125.	
H. Ec. 183 — Consumer Textiles	2
H. Ec. 271 — Home Management, or H. Ec. 171 — Home Management, and H. Ec. 270 — Family Financial Management	2-5
Electives in home economics	10-14
Total	20

ELECTIVES	
H. Ec. 105 — Introduction to Human Development	3
H. Ec. 125 — Food Selection and Preparation	3
H. Ec. 133 — Food Management	2
Credit is not given in H. Ec. 132 and 133 in addition to H. Ec. 120 and 125.	
H. Ec. 160 — The Home and Its Furnishings	4
H. Ec. 184 — Apparel Design and Selection	2
H. Ec. 202 — Laboratory in Child Development	2
H. Ec. 210 — Family Relationships	3
H. Ec. 231 — Foods	3
H. Ec. 260 — Period Styles in Home Furnishings	3
H. Ec. 280 — Household Textiles	2
H. Ec. 285 — History of Costume	2
H. Ec. 287 — Consumer Clothing Problems	2
H. Ec. 395 — Fashion Analysis	3

TEACHER EDUCATION MINOR IN JOURNALISM

This minor is specifically for students in teacher education programs. It requires a minimum of 18 hours in communications courses. In addition to three required courses with a total of 9 hours of credit, a minimum of 9 additional hours must be chosen from a selected group of electives.

REQUIRED COURSES	HOURS
Typography	3
Newswriting	3
News editing	3
Electives in advertising, journalism, and communications	9
Total	18

ELECTIVES	
Introduction to advertising	3
Public affairs reporting	3
Contemporary affairs	2
Photojournalism	3
Magazine article writing	3
Principles of radio and television broadcasting	2

Others may be chosen in consultation with the adviser.

Mélange

COLLEGE OF EDUCATION

University of Illinois at Urbana-Champaign
120 Education Building
Urbana, IL 61801

The College of Education of the University of Illinois at Urbana-Champaign offers undergraduate degree programs in four of the seven departments within the college. The departments which offer undergraduate degree programs, and the programs offered by each, are given below.

The Department of Vocational and Technical Education offers degree programs in industrial education, health occupations, and business education. Although freshmen may be admitted to these curricula, students interested in industrial education and health occupations are typically encouraged to obtain academic and technical preparation in their areas of specialization prior to admission.

The Department of Secondary and Continuing Education offers degree programs in the following secondary teaching specialties: English, mathematics, social studies, general science, physical sciences, and life sciences. Only students who have earned at least 60 semester hours are considered for admission to secondary education curricula in the College of Education.

The Department of Special Education offers undergraduate degree programs preparatory to teaching the deaf and hard of hearing[1] and the teaching of mentally handicapped children. Students are encouraged to enter these curricula as freshmen. This program is able to accommodate only a small number of undergraduate students.

The Department of Elementary and Early Childhood Education offers degree programs in elementary education and early childhood education.

In addition to offering undergraduate degree programs in education, the College of Education, under the auspices of the Urbana Council on Teacher Education, cooperates with five other colleges at the Urbana-Champaign campus to provide courses in professional education to undergraduate students who are preparing for careers in teaching and special educational services.

The College of Education also offers graduate degree programs in educational administration, higher education, continuing education, elementary education, special education, secondary education, vocational and technical education, educational psychology, and educational policy studies. Detailed information concerning graduate programs in education may be obtained from the catalog of the Graduate College or from the coordinator of graduate study in education, 110 Education Building.

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[1] The curriculum preparatory to teaching deaf and hard-of-hearing children may be transferred to the College of Liberal Arts and Sciences during the period covered by this catalog.

ADMISSION REQUIREMENTS

The curricula in the education of deaf and hard-of-hearing children,[2] education of mentally handicapped children, business education, technical education specialties, early childhood education, and elementary education admit beginning freshmen. (Admission requirements for these programs are given on the Admissions Chart on page 45.) Junior standing, at least 60 semester hours of baccalaureate-oriented course work, attained at an accredited institution of higher learning, is required for admission to all other undergraduate curricula.

A minimum cumulative grade-point average of 3.5 (A = 5.0) is required to be considered for admission to the College of Education in good standing. A student whose cumulative average is below 3.5 may be considered individually, on a petition basis, if enrollment vacancies exist in the curriculum to which admission is being sought. If admitted, such students may be placed on provisional status by the Urbana Council on Teacher Education and/or the College of Education.

SPECIAL PROGRAMS

Elementary Education Semester in England

The Department of Elementary Education provides an opportunity for undergraduate students at the junior level to study at the University of Bristol and associated teachers colleges, and to work in the infant and junior schools of England.

Students carry several courses and have opportunities to assist regular teachers in classrooms. The one semester of work and study enables students preparing for teaching to receive first-hand experience working with children and to work with teaching methods and curricula used in England.

Costs for the semester of study and transportation expenses are borne by the students involved, but normally do not exceed by any significant amount the normal costs of attending the University of Illinois at Urbana-Champaign.

Inquiries regarding the program should be directed to the Department of Elementary Education, University of Illinois at Urbana-Champaign, 314 Education Building, Urbana, Illinois 61801.

HONORS PROGRAMS

Honors at Graduation

Eligibility for graduation with honors is established on the fulfillment of residence and scholastic requirements. Residence requirements for graduation with honors are fulfilled under any of the following conditions:

- Meeting University residence requirements for graduation. Furthermore, at least 54 of the final 60 semester hours of credit must have been earned in residence at Urbana-Champaign. Credit for courses which is not included in the grade-point average does not count toward residency.
- Obtaining waiver of University residence requirements by petition to the undergraduate office, 120 Education Building, and earning at least 54 of the last 60 semester hours of credit, excluding credit for courses which are not included in computation of the grade-point average, through resident study at Urbana-Champaign.
- Meeting University residence requirements and having completed all but 15 hours in resident study at Urbana-Champaign.

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[2] This curriculum may be transferred to the College of Liberal Arts and Sciences during the period covered by this catalog.

– Having completed the first 90 semester hours in residence and all or part of the senior year in an approved program at another institution for the University of Illinois degree.

A student who achieves the required scholastic average in all education courses and in all work presented for graduation (excluding credit for courses not included in the computation of the grade-point average), with education and graduation averages computed separately, may be recommended for honors as follows: Honors, minimum education and graduation scholastic grade-point averages of 4.25 (A = 5.0); High Honors, minimum education and graduation scholastic grade-point averages of 4.50; Highest Honors, minimum education and graduation scholastic grade-point averages of 4.75. It should be noted that these requirements are subject to change.

Edmund J. James Scholars

For information concerning the James Scholar Program see page 55.

GRADUATION REQUIREMENTS

Each undergraduate student in the College of Education must meet the University requirements (pages 90 to 97) and the requirements of the Urbana Council on Teacher Education (pages 116 to 119) for graduation. Students in all curricula must meet the course and academic credit requirements of their curricula with satisfactory scholastic averages. Educational practice (student teaching), which is required of all undergraduates in teacher education, must be completed at the University of Illinois at Urbana-Champaign.

Students in need of additional information concerning regulations and requirements of the College of Education should consult their academic advisers or the office of the Coordinator of Undergraduate Programs, University of Illinois at Urbana-Champaign, 120 Education Building, Urbana, Illinois 61801.

GENERAL EDUCATION REQUIREMENTS

Each candidate for a degree in the College of Education must complete at least 6 semester hours of credit in each of three areas — humanities, natural sciences, and social sciences. In certain curricula additional credit in these areas may be required. Courses in these areas taken as part of the major field in secondary curricula are acceptable. Departments which offer appropriate courses are listed below.

HUMANITIES

Art (not studio courses)
Classics
English (literature)
French (literature)
German (literature)
History (not U.S. history)
Humanities
Music (not performance courses)
Philosophy
Russian (literature)
Spanish (literature)
Speech communication

NATURAL SCIENCES

Astronomy
Biology
Botany
Chemistry
Entomology
Geography
Geology
Mathematics — any 6 hours exclusive of Math. 104, 111, 114. (Mathematics is not acceptable as a physical science in elementary and early childhood education.)
Microbiology
Physics
Physiology
Zoology

SOCIAL SCIENCES

The college requirement in the social sciences must be fulfilled through the completion of one course in United States history and one course in United States government, to total at least 6 semester hours. History 151 or 152 and Political Science 150 or 191 are strongly recommended since they will also satisfy the state and federal constitutions' requirement for teacher certification.

Curricula

CURRICULUM PREPARATORY TO HIGH SCHOOL TEACHING

For the degree of Bachelor of Science in Secondary Education

The curriculum preparatory to high school teaching includes the following requirements in general education and professional education common to all specialties. For requirements in addition to those below, refer to pages 116 to 119 for teacher education requirements applicable to all curricula.

It is essential that students consult appropriate teacher education advisers in the selection of specific courses and in the overall planning of degree programs.

A minimum of 120 hours of credit, excluding basic military, is required for graduation.

GENERAL EDUCATION REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective	6-7
Humanities[1]	6
Natural sciences[1]	6
History of the United States	3
American government (state and federal constitutions)	3
General psychology	3
Health and/or physical education	3
Total	30-31

PROFESSIONAL EDUCATION REQUIREMENTS	
Orientation to professional education	2
Principles of education	2
Psychology of teaching and learning	3
History and philosophy of education (Educational Policy Studies)	3
Techniques of teaching	4-5
Educational practice (student teaching)	5
Total	19-20

[1] Courses in humanities and natural sciences must be selected from those listed on page 195. If the teaching major or minor area of specialization includes courses in these subjects, they also may be applied toward general education requirements. The social science requirement is fulfilled by the courses in U.S. history and American government.

Specialty in Life Science

Additional electives in science and courses related to science teaching must be taken to bring the total of such work to approximately 70 semester hours. The completion of a teacher education minor in mathematics or one of the physical sciences is recommended.[1,2]

[1] Courses related to science teaching may include mathematics, history of science, philosophy of science, anthropology, experimental psychology, physical geography, and science education exclusive of the education courses specifically required for certification.

[2] Minimum Illinois requirements for teaching biology or physical science may be satis-

fied by a minimum of 24 semester hours of work, appropriately distributed, in the field. Minimum state requirements for teaching mathematics may be satisfied by three appropriately distributed 300-level courses beyond a basic calculus sequence.

REQUIRED CORE COURSES	HOURS
General physics	10-12
General chemistry	8-10
Life science	8-10
Descriptive statistics or educational measurement	3-4
Organic chemistry	5
Physiology (experimental, including laboratory)	5
Micrabiology (including laboratory)[3]	6
Genetics	4
Vertebrate or invertebrate zoology	3-5
Ecology	3-5
Botany	3-5
Total	58-71

TOTAL

Including general education and professional education credit, at least 120

[3] Microbiology may be taken for 3 to 5 hours credit. The minimum required far teacher education is 3 hours. Students with particular interest in micrabiology may take additianal hours.

Specialty in English

REQUIREMENTS FOR BOTH OPTIONS	HOURS
Literature for the high school or audiovisual communication	3
Fundamentals of reading techniques	3
Oral interpretation	3

OPTION A: TEACHER EDUCATION MAJOR IN ENGLISH

Introduction to Shakespeare	3
Survey of American literature, or equivalent	6
Survey of English literature, or equivalent	6
Descriptive English grammar	3
Principles of composition, or intermediate expositary writing	3
English electives	11
Six af these haurs must be in caurses restricted to advanced undergraduates. It is recommended that electives be chasen fram English afferings in literary genres, warld and/or classical literature, literary criticism, cantemporary literature, backgrounds ta literature, rhetaric, and linguistics.	
Tatal	32

TEACHER EDUCATION MINOR OR SUPPORTING AREAS OF CONCENTRATION

Students selecting the teacher education major in English (Optian A) must (1) complete ane of the teacher education minors listed on page 118, or (2) complete at least three caurses in each of two areas of concentration, or, (3) camplete at least two courses in each af three areas of concentration. The areas of concentration are language and communications; language perfarmance, oral and written; humanities and philasophy; methods and theories of critical processes; world and classical literatures; and the teaching of components of English. Caurses far the areas of cancentratian must be elected in consultation with the adviser. Students selecting the teacher education major in literature (Option B) must complete the approved teacher education minor in rhetoric or the approved teacher educatian minar in teaching English as a second language.

TOTAL	HOURS
Including general educatian and profassional education credit, at least	120

OPTION B: TEACHER EDUCATION MAJOR IN LITERATURE

Poetry, drama, fiction, or honors seminar....6
Introduction to Shakespeare....3-6
Practical criticism....3
Survey of American literature....6
Survey of English literature....6
Advanced English electives....5-8
Total....29-35

TEACHER EDUCATION MINOR IN RHETORIC

See page 340.

TEACHER EDUCATION MINOR IN ENGLISH AS A SECOND LANGUAGE

See page 340.

TOTAL

Including general education and professional education credit, at least....120

Specialty in General Science

REQUIRED CORE COURSES	HOURS
General physics	10-12
General chemistry	8-10
Life science	8-10
Descriptive statistics or educational measurement	3-4
Two of the following:	
General astronomy or descriptive astronomy	3-8
Physical geography	4
Physical geology	4

ELECTIVES

Additional electives in science and courses related to science teaching must be taken to bring the total of such work to approximately 70 semester hours, including 15 semester hours of 200- and/or 300-level courses in sciences, exclusive of those listed immediately above. The completion of a teacher education minor in either biology or mathematics is recommended.[1,2]

TOTAL

Including general education and professional education credits, at least....120

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[1] Courses related to science teaching may include mathematics, computer science, history of science, philosophy of science, anthropology, experimental psychology, physical geography, and science education exclusive of the education courses specifically required for certification.

[2] Minimum state of Illinois requirements for teaching biology or physical science may be satisfied by a minimum of 24 semester hours of work, appropriately distributed, in the field. Minimum state requirements for teaching mathematics may be satisfied by three appropriately distributed 300-level courses beyond a basic calculus sequence.

Specialty in Mathematics

REQUIRED COURSES IN MATHEMATICS	HOURS
Calculus and analytic geometry	13
Topics on geometry	3
Advanced aspects of Euclidean geometry	3
Selected mathematical topics for secondary school teachers	6
Abstract algebra	3
Linear algebra, or linear transformations and matrices	3
Advanced calculus, or introduction to higher analysis: real variables	3
Total	34

REQUIRED COURSES IN COMPUTER SCIENCE

Introduction to automatic digital computing, or introduction to digital computing for secondary school teachers 3

TOTAL

Including general education and professional education credits, at least 120

Specialty in Physical Science

REQUIRED CORE COURSES	HOURS
General physics	10-12
General chemistry	8-10
Life science	8-10
Descriptive statistics or educational measurement	3-4

One of the following options must be completed:

OPTION A. CHEMISTRY

Twenty-two to 24 hours in chemistry beyond the core courses. For more detailed information refer to the Curriculum Preparatory to the Teaching of Chemistry on page 337. Additional electives in science and courses related to science teaching must be taken to bring the total of such work to approximately 70 semester hours. The completion of a teacher education minor in either mathematics, physics, or biology is recommended.[1,2]

OPTION B. PHYSICS

Nineteen hours in physics beyond the core courses. For more detailed information refer to the Curriculum Preparatory to the Teaching of Physics on page 349. Additional electives in science and courses related to science teaching must be taken to bring the total of such work to approximately 70 semester hours. The completion of a teacher education minor in either mathematics or chemistry is recommended.[1,2]

OPTION C. EARTH SCIENCE

Thirty-two hours in earth science beyond the core courses. For more detailed information refer to the Curriculum Preparatory to the Teaching of Earth Science on page 338. Additional electives in science and courses related to science teaching must be taken to bring the total of such work to approximately 70 semester hours. The completion of a teacher education minor in biology, mathematics, or one of the physical sciences is recommended.[1,2]

TOTAL

Including general education and professional education credits, at least 120

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[1] Courses related to science teaching may include mathematics, history of science, philosophy of science, anthropology, experimental psychology, physical geography, and science education exclusive of the education courses specifically required for certification.

[2] Minimum state of Illinois requirements for teaching biology or physical science may be satisfied by a minimum of 24 semester hours of work, appropriately distributed, in the field. Minimum state requirements for teaching mathematics may be satisfied by three appropriately distributed 300-level courses beyond a basic calculus sequence.

Specialty in Social Studies

This specialty offers preparation for teachers of high school and junior high school courses in history, sociology, economics, political science, geography, and general social studies.

Two arrangements are provided for completing the major and minor requirements:

Option A requires a social studies major of 41 hours and a minor of 20 to 24 hours in an approved teaching field outside the social studies (English, a foreign language, mathematics, etc.). The major under option A consists of two parts: (1) 20 hours in history, and (2) 21 hours in anthropology, economics, geography,

political science, and sociology distributed to provide one course in each of the four fields and some concentration in two of the fields.

Option B requires a social studies major of 36 hours and a minor of 20 hours which is also within the social studies field. The major under option B consists of two parts: (1) 16 to 21 hours in history and (2) 15 to 20 hours in anthropology, economics, geography, political science, and sociology distributed to provide courses in three of the four fields. The 20-hour minor is taken entirely in one of the areas of economics, geography, political science, or sociology which has not been included in the major.

The choice of options will be selected in consultation with an adviser. Under each option at least one course in American history and one in American government is required.

CURRICULUM IN BUSINESS EDUCATION

For the degree of Bachelor of Science in Business Education

All students complete requirements as outlined in prescribed courses in business education, general education, professional education, one or more areas of specialization, and general electives. Each student must complete the requirements of one area of specialization. If he chooses he may also complete a second area of specialization or one of the approved teacher education minors as outlined on page 118. A minimum of 126 hours of credit, excluding basic military, is required for graduation.

For teacher education requirements applicable to all curricula, see pages 116 to 119.

GENERAL EDUCATION COURSES	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and a speech communication performance elective, or Rhet. 108 and a speech communication performance elective	6-7
Humanities (two approved courses)[1]	6-8
Introduction to psychology	3
Natural science (approved courses including a laboratory course)[1]	6-8
Health and/or physical education	3
Social science sequence[2]	6-8
Total	30-37

PRESCRIBED COURSES IN BUSINESS EDUCATION	
Principles of accounting I and II	6
Principles of economics I and II	6
Introductory economic statistics	3
Introductory analysis for social scientists (Math. 124 and 134)	7
Business and technical writing	3
Total	25

PROFESSIONAL EDUCATION REQUIREMENTS	
Orientation to professional education	2
Principles of vocational education	2
Psychology of teaching and learning	3
History and philosophy of education (educational policy studies)	3
Techniques of teaching	4-5
Educational practice (student teaching)	5
Total	19-20

[1] Courses in natural science and humanities must be selected from the approved General Education Requirements list on page 195.

[2] Must include one course in U.S. history and one course in political science which covers both Illinois and federal constitutions. Hist. 152 and Pol. S. 150 are recommended.

GENERAL ELECTIVES

General electives (up to 24 hours) will be selected as needed to meet the minimum requirement of 126 hours for graduation. These may include courses to develop depth to respond to the diverse interests of the student.

Suggested Areas of Specialization

Each student will declare his area of specialization no later than the first semester of his junior year, unless he enters the curriculum after that time. The student's proposed program will be outlined in detail and filed in the office of the Department of Vocational and Technical Education and in the Undergraduate Student Office, 120 Education Building. The following lists of specific courses are provided as a guide for students and advisers. Substitution may be made with the approval of the adviser. Each student is expected to complete the minimum program in the area of specialization which he declares.

ACCOUNTING-BOOKKEEPING	HOURS
Intermediate accounting	3
Cost accounting	3
Basic federal income tax accounting	3
Introduction to computers and their application to business and commerce	3
Electives in accounting	6-8
Management and organizational behavior	3
Technic and curriculum development for teaching secretarial and office practice subjects[1]	3
Technic and curriculum development for teaching data processing and office machines[1]	3
Total	27-29

DATA PROCESSING	
Accounting	3
Accounting system design	3
Introduction to computers and their application to business and commerce	3
Economic statistics II	3
Electives in computer science	7-9
The legal environment of business (business administration)	3
Technic and curriculum development for teaching data processing and office machines[1]	3
Total	25-27

ECONOMICS	
Economic statistics II	3
Intermediate microeconomic theory	3
Intermediate macroeconomic theory	3
Electives in economics	7-9
Introduction to management	3
Select three of the five courses listed:	9
Government finance and taxation (economics)	
Labor problems (economics)	
Comparative economic systems (economics)	
Economics of consumption (economics)	
Introduction to business financial management (finance)	
Total	28-30

[1] Students who wish to teach in special fields requiring essential competencies in an applied area such as typing, shorthand, and office machines must obtain an acceptable level of proficiency prior to enrollment in the program, or outline a plan whereby these skills may be obtained prior to enrollment in Vo. Tech. 270 and 271 and student teaching. Proficiency levels are validated by the business education faculty through examination.

MARKETING AND DISTRIBUTIVE EDUCATION

Elective in marketing	3-4
The legal environment of business	3
Principles of marketing	3
Retail management	3
Advertising and sales management	3
Technic and curriculum development for teaching secretarial and office practice subjects[1]	3
Technic and curriculum development for teaching data processing and office machines[1]	3
Cooperative vocational and technical education programs	4
Problems in concurrent work-education	4
Total	29-30

SECRETARIAL-OFFICE PRACTICE

Elective in industrial administration or finance	3-4
Introduction to business financial management	3
The legal environment of business	3
Introduction to management	3
Personnel management	3
Technic and curriculum development for teaching secretarial and office practice subjects[1]	3
Technic and curriculum development for teaching data processing and office machines[1]	3
Cooperative vocational and technical education programs	4
Problems in concurrent work-education	4
Total	29-30

[1] Students who wish to teach in special fields requiring essential competencies in an applied area such as typing, shorthand, and office machines must obtain an acceptable level of proficiency prior to enrollment in the program, or outline a plan whereby these skills may be obtained prior to enrollment in Vo. Tech. 270 and 271 and student teaching. Proficiency levels are validated by the business education faculty through examination.

CURRICULUM IN EARLY CHILDHOOD EDUCATION

For the degree of Bachelor of Science in Early Childhood Education

This four-year curriculum is designed to meet the requirements for teaching in the nursery school and kindergarten-primary grades in Illinois schools. A minimum of 124 semester hours of credit, excluding basic military, is necessary for graduation under this curriculum. While the degree is in early childhood education the graduate is certifiable for grades K-9.

For teacher education requirements applicable to all curricula, see pages 116 to 119.

LANGUAGE ARTS	HOURS
Rhet. 105 and a performance-based speech communication course, or Rhet. 108 and a performance-based speech communication course, or Sp. Com. 111 and 112	6-7
Literature	6
Children's literature	3
Total	15-16

SOCIAL SCIENCE

Social science courses approved by adviser[1]	6-8
History of the United States	3-4
American government (state and federal constitutions)	3
Total	12-15

NATURAL SCIENCE

Biological science[1]	6-8
Physical science[1] (mathematics not acceptable)	6-8
Total	12-16

FINE ARTS

Music for early childhood education 6
Art for the elementary school 5
Total 11

HUMANITIES

May be fulfilled with literature courses above 6

MATHEMATICS

Including content and methods 5

PSYCHOLOGY 3

HEALTH AND/OR PHYSICAL EDUCATION

Including one course in health or physical education for the elementary school 5

AREA OF CONCENTRATION

Courses (12 hours) selected from one of the above areas and in addition to those fulfilling requirements noted above.

PROFESSIONAL EDUCATION

History and philosophy of education (educational policy studies) 3
Child growth and development 3
Pre–student teaching practicum 5
Primary reading and language arts 6
Methods of teaching science 3
Methods of teaching social studies 3
Principles of early childhood education 3
Student teaching with seminar 5
Student teaching at early childhood level 3
Total 34

ELECTIVES

To yield a total (with above requirements) of 124

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[1] To be selected from appropriate General Education Requirements list on pages 195 and 196.

CURRICULUM PREPARATORY TO ELEMENTARY SCHOOL TEACHING

For the degree of Bachelor of Science in Elementary Education

This four-year curriculum is designed to meet the requirements for teaching in the elementary and kindergarten-primary grades of Illinois schools. A minimum of 124 semester hours, excluding basic military, is necessary for graduation under this curriculum. The graduate is certifiable for grades K-9.

For teacher education requirements applicable to all curricula, see pages 116 to 119.

LANGUAGE ARTS	HOURS
Rhet. 105 and a performance-based speech communication course, or Rhet. 108 and a performance-based speech communication course, or Sp. Com. 111 and 112	6-7
Literature	6
Children's literature	3
Total	15-16

SOCIAL SCIENCE

Social science courses approved by adviser[1]	6-8
History of the United States	3-4
American government (state and federal constitutions)	3
Cultural geography	3-4
Total	15-19

NATURAL SCIENCE

Biological science[1]	6-8
Physical science[1] (mathematics not acceptable)	6-8
Total	12-16

FINE ARTS

Music for the elementary school	6
Art for the elementary school	5
Total	11

HUMANITIES

May be fulfilled with literature courses above ..... (6)

MATHEMATICS

Including content and methods 8

PSYCHOLOGY 3

HEALTH AND/OR PHYSICAL EDUCATION

Including one course in health or physical education for the elementary school 5

AREA OF CONCENTRATION

Courses (12 hours) selected from one of the above areas and in addition to those fulfilling requirements noted above.

PROFESSIONAL EDUCATION

History and philosophy of education (educational policy studies)	3
Child growth and development	3
Pre–student teaching practicum	5
Primary reading and language arts	6
Student teaching with seminar	8
Total	25

ELECTIVES

To yield a total (with above requirements) of 124

[1] To be selected from appropriate General Education Requirements list on pages 195 and 196.

CURRICULUM IN TECHNICAL EDUCATION SPECIALTIES

For the degree of Bachelor of Science in Occupational and Practical Arts Education

The curriculum outlined below requires a minimum of 128 hours for graduation (excluding basic military science). A student who completes this curriculum will be qualified to teach his or her specialty at one or more of the following types of institutions: elementary school, secondary school, technical institute, junior college, business, or industry. Examples of technical education specialties include: preparation for the teaching of environmental maintenance, food service occupations, health occupations, accounting, ornamental horticulture, industrial arts, dental assisting, manufacturing, and office occupations.

For teacher education requirements applicable to all curricula, see pages 116 to 119.

GENERAL EDUCATION REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and a speech communication performance elective, or Rhet. 108 and a speech communication performance elective	6-7
General psychology	3
Natural sciences (approved courses)	6-8
Humanities (approved courses)	6-8
History of the United States	3
American government (state and federal constitutions)	3
Health and/or physical education	3
Total	30-35

PROFESSIONAL EDUCATION REQUIREMENTS COMMON TO ALL TECHNICAL EDUCATION SPECIALTIES	
History and philosophy of education (educational policy studies)	3
Principles of occupational and practical arts education	2
Psychology of teaching and learning	3
Methods of teaching	3
Educational practice	5
Elective	3
Total	19

TECHNICAL EDUCATION SPECIALTY REQUIREMENTS

The technical education specialties provide opportunities for planning individual programs of study under the supervision of a faculty adviser qualified in the student's special field of interest. Examples of specific programs are on file with the Department of Vocational and Technical Education to aid in program planning.

Supervised Occupational Experience

Cooperative arrangements have been made by the University for supervised occupational experience of technical education specialty students while employed in selected employment locations. This program is designed for students preparing to become certified vocational or technical specialty instructors, for students preparing for employment in training departments maintained by business or industrial organizations, or for students preparing to be teachers of selected occupations. Students may accumulate up to 17 semester hours of credit through registration in Vo. Tech. 189 — Supervised Occupational Experience.

Cooperative arrangements have been established with some junior colleges whereby registration in this program may be accomplished after completion of the freshman year.

Summary

	MINIMUM HOURS
General requirements	30-35
Professional education requirements	19
Technical education specialty requirements	48
General electives	26-31
Total	128

CURRICULUM PREPARATORY TO TEACHING DEAF AND HARD-OF-HEARING CHILDREN[1]

For the degree of Bachelor of Science in the Education of the Deaf

A student who wishes to enter the curriculum for the education of the deaf and the hard-of-hearing must rank in the upper 25 percent of his high school graduating

[1] This curriculum may be transferred to the College of Liberal Arts and Sciences and revised during the period covered by this catalog.

class or, if a transfer student, must have a grade-point average of at least 3.5 (A=5.0).

A minimum of 124 hours of credit, excluding basic military, is required for graduation.

For teacher education requirements applicable to all curricula, see pages 116 to 119.

GENERAL EDUCATION REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and a speech communication performance elective, or Rhet. 108 and a speech communication performance elective	6-7
Natural sciences (approved courses)	6-8
Introductory psychology	3
Social sciences	11-13
History of the United States	3-4
American government (state and federal constitutions)	3
Social science electives (approved by adviser)	5-6
Humanities (two approved courses)	6
Health and/or physical education	3
Total	35-40

BASIC CURRICULUM REQUIREMENTS	
Speech and hearing science	
General phonetics	3
Speech science	3
Hearing disorders	3
Aural rehabilitation	3
Audiometry	3
Special Education Requirements	
Exceptional children	3
Psychosocial educational aspects of deafness	3
Special education of the deaf	10
Mental and educational measurement of exceptional children	3
Mathematics in the elementary grades	3
Music for elementary schools	3
Art for elementary schools	2
Electives, chosen in consultation with adviser	10-13
Total	52-55

ELECTIVES	
Chosen in consultation with an adviser	29-37

PROFESSIONAL EDUCATION REQUIREMENTS	
Child development for elementary teachers	3
History and philosophy of education (educational policy studies)	3
Fundamentals of reading techniques	3
Principles, problems, and issues in elementary education	3
Educational practice (exceptional children)	9
Educational practice (elementary school)	3
Total	24

CURRICULUM PREPARATORY TO TEACHING MENTALLY HANDICAPPED CHILDREN

For the degree of Bachelor of Science in the Education of Mentally Handicapped Children

A student who wishes to enter the curriculum for the education of the mentally handicapped must rank in the upper 25 percent of his high school graduating class or, if a transfer student, must have a grade-point average of at least 3.5 (A=5.0).

A minimum of 124 hours of credit, excluding basic military, is required for graduation.

For teacher education requirements applicable to all curricula, see pages 116 to 119.

GENERAL EDUCATION REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and a speech communication performance elective, or Rhet. 108 and a speech communication performance elective	6-7
Natural sciences (approved courses)	6-8
Introductory psychology	3
Social sciences	11-13
History of the United States	3-4
American government (state and federal constitutions)	3
Social sciences elective (approved by adviser)	5-6
Humanities (two approved courses)	6
Health and/or physical education	3
Total	35-40

BASIC CURRICULUM REQUIREMENTS	
Special Education	
Exceptional children	3
Psychology and education of the mentally handicapped	6
Mental and educational measurement of the mentally handicapped	3
Workshop and laboratory in education of exceptional children	6-8
Educational practice (exceptional children)	8
Educational practice (elementary school)	3
Principles, problems, and issues in elementary education	3
Fundamentals of reading techniques	3
Mathematics in the elementary grades	3
Total	38-40

SUPPORTING AREA REQUIREMENTS	
Speech correction	3
Psychology (child, personality, abnormal)	6
Arts and crafts in the elementary grades	2
Music for elementary schools	3
History and philosophy of education (educational policy studies)	2
Total	16

ELECTIVES	
Chosen in consultation with an adviser	28-35

OFFICE OF

COLLEGE OF ENGINEERING

University of Illinois at Urbana-Champaign
207 Engineering Hall
Urbana, IL 61801

The College of Engineering prepares men and women for professional careers in engineering and for responsible positions of a technical and semitechnical character in industry, commerce, education, and government. The college provides training in the mathematical and physical sciences and their application to a broad spectrum of technological and social requirements of society. The engineering curricula, though widely varied and specialized, are built on a general foundation of scientific theory applicable to many different fields. Work in the classroom and laboratory is brought into sharper focus by practical problems which the student solves by methods similar to those of practicing engineers.

While each student pursues a curriculum chosen to meet his own career goals, all students take certain common courses. Basic courses in mathematics, chemistry, physics, rhetoric, and computer science are required in the first two years. Although the curricula are progressively specialized in the third and fourth years, each student is required to take some courses outside his chosen field.

Nontechnical courses are included in each curriculum; they may be required or elective. Many nontechnical courses satisfy the broad objectives of the humanities and social sciences requirements of the engineering curricula — making the student keenly aware of the urgent problems of society and developing a deeper appreciation of man's cultural achievements. The humanities and social sciences courses are usually drawn from the liberal arts and sciences, economics, and approved courses in fine and applied arts. Students who wish a broader cultural background should consider a combined engineering–liberal arts and sciences program as described on page 212.

The Engineering Library, on the first three floors of Engineering Hall, is a major resource center for students of all curricula. It contains the reference books, periodicals, catalogs, and technical publications which students need constantly, and also provides for general reading and private research.

DEPARTMENTS AND CURRICULA

The College of Engineering includes the Departments of Aeronautical and Astronautical Engineering, Ceramic Engineering, Civil Engineering, Electrical Engineering, General Engineering, Mechanical and Industrial Engineering, Metallurgy and Mining Engineering, Physics, and Theoretical and Applied Mechanics. The undergraduate curricula described later in this section are administered by these departments. The work in chemical engineering is administered by the College of Liberal Arts and Sciences. The curriculum in agricultural engineering is administered jointly by the Colleges of Agriculture and Engineering. The work in computer science is administered jointly by the Department of Computer Science and the College of Engineering. Architecture and the engineering option in architecture are administered by the College of Fine and Applied Arts. (See page 253.)

Both undergraduate and postbaccalaureate programs in the teaching of engineering technology are administered by the College of Engineering through the Urbana Council on Teacher Education, with the full cooperation of the College of Education.

Each student entering the College of Engineering declares his choice of a curriculum. Except for the curriculum in the teaching of engineering technology, all first-year students follow the common program for freshmen shown below.

ADMISSION REQUIREMENTS

Entering Freshmen

Students seeking admission to the College of Engineering who are recent high school graduates or who have earned less than 12 semester hours of credit at other collegiate institutions are classified as new freshmen and must meet the entrance requirements to the College of Engineering that are specified for new freshmen. (See the Admissions Chart on page 46.) Also a student should have an ACT score of 24 (SAT score of 970) or better and be in the upper 35 percent of his high school class.

Although new freshmen take a common, or similar, program (shown below) they are asked to choose a curriculum in which they wish to study. Freshmen may change their curriculum of study at their own request any time during, or at the conclusion of, their freshman year of study. Since the program of study is essentially the same for all freshman students, such changes can be made without loss of credit toward graduation.

The Mathematics Placement Test is required of all freshman students entering the College of Engineering, and they are urged to take the examination during the spring testing period prior to enrollment.

The Chemistry Placement Test is required of all entering freshmen who will take freshman chemistry during their first year. This examination will be used to place a student in a remedial course for engineers, Chem. 100, or in the normal beginning course for engineers, Chem. 101. Students with a superior background in chemistry may take the Chemistry Proficiency Test which, if passed, would place them in Chem. 102 and grant them 4 hours proficiency credit for Chem. 101.

All entering freshmen take a common first-year program as described below. Any freshman completing the first two semesters in any engineering curriculum in the college will be able to use every course taken toward any other curriculum in the college into which he wishes to transfer.

COMMON FIRST-YEAR PROGRAM	HOURS
Engineering lectures	0
Chemistry	4-8
Mathematics[1]	8-10
Physics	4

Rhetoric	4
Engineering electives	0-6
Electives	3-6
Total	31-36

[1] Entering freshmen who do not pass the Mathematics Placement Test will take Math. 111 or 112, and 114. Students who have had analytic geometry in high school and pass the Mathematics Placement Test will replace the normal mathematics sequence (Math. 120, 131, and 141) with Math. 135, 145, and 3 semester hours of free electives.

Transfer Students

The College of Engineering welcomes transfer students from both junior and senior colleges and has worked closely with these schools in Illinois to implement pre-engineering programs.

Students may complete the first two years of study in other accredited institutions and transfer to the University of Illinois at Urbana-Champaign with little or no loss of credit provided they follow a program similar to the one in the College of Engineering. Following is a suggested list of courses which should be completed in the first two years prior to transfer. A range of hours is given in each of these course work areas, as the major concern is that students have an adequate coverage of basic subject matter rather than specific numbers of hours in given areas. The range is given for students who may be attending schools on either the quarter-hour or semester-hour system.

SUGGESTED PREENGINEERING COURSES	RANGE OF HOURS QUARTER HOURS	SEMESTER HOURS
Freshman chemistry	10-15	6-10
General physics	12-18	8-12
English (rhetoric and composition)	6-9	3-6
Mathematics (total mathematics credits)	20-24	15-17
Calculus or calculus and analytic geometry	16-20	12-14
Differential equations	3-4	3
Engineering graphics (mechanical drawing and/or descriptive geometry)	4-6	3-4
Applied mechanics — statics	3-4	2-3
Applied mechanics — dynamics	3-6	2-3

OTHER COURSES	RANGE OF HOURS QUARTER HOURS	SEMESTER HOURS
Social sciences and humanities	Varies	Varies
Matrix algebra	3-4	2-3
Introduction to automatic digital computing (FORTRAN programming and numerical methods)	3-4	2-3
Statistics	4	3

Students should complete as many of the suggested courses as possible and select additional course work from those listed as Other Courses to complete full-time study programs. Normally, a student will complete all of the suggested courses and 8 to 10 additional semester hours of course work. This additional course work may include social sciences and humanities electives but could include work in computer science or advanced mathematics.

Before selecting social sciences and humanities electives, students should familiarize themselves with the elective requirements of the college listed on page 219. Students seeking transfer to the college must have a cumulative grade-point average of at least 3.25 (A=5.0).

Students may transfer to the college for the fall, spring, or summer session provided the students have completed 60 or more semester hours of work. Transfer students starting their studies in the fall semester are also allowed to advance enroll

during the preceding summer. Students are informed of this opportunity after they are admitted. Questions are invited concerning this procedure.

A few sophomore-level technical courses such as E.E. 260, M.E. 185, and C.E. 195, are not offered by most junior colleges. However, junior-level transfer students can usually arrange their programs here so that all technical requirements can be completed in a four-semester period on this campus if they wish to do so. If the number of hours remaining to complete a degree requires more than four semesters, the student may enroll for an additional summer session or semester.

Students transferring to the College of Engineering are encouraged to write to the Office of the Associate Dean, University of Illinois at Urbana-Champaign, 207 Engineering Hall, Urbana, Illinois 61801, or to the head of the department to which they wish to transfer, at any time they wish guidance in the selection of courses. Transfer students who are deficient in areas such as mathematics, physics, or mechanics may find it difficult to obtain a full program here in their first semester. It is recommended that a student complete all sequences in mathematics, physics, and chemistry at one institution in order to maintain proper continuity. In cases where this is not possible, a student may enroll in a summer session to make up deficiencies.

Transfer students are not required to take freshman guidance examinations, or any other examinations, to qualify for admission to the College of Engineering, but all other admission regulations apply to them. Transfer students should consult Admission by Transfer on page 31 for general information concerning transfer to the University of Illinois at Urbana-Champaign, and students from junior colleges should note especially the rules regarding Junior Colleges on page 35.

SPECIAL PROGRAMS

Combined Engineering–Liberal Arts and Sciences Program

A five-year program of study permits a student to earn a Bachelor of Science degree in a field of engineering from the College of Engineering and a Bachelor of Arts or a Bachelor of Science degree from the College of Liberal Arts and Sciences at the Urbana-Champaign campus.

This program affords students the opportunity to prepare for careers of an interdisciplinary nature. By selecting an appropriate liberal arts and sciences major in combination with the desired engineering curriculum, it is possible for students to qualify for new and unique careers in industry, business, or government. Students who desire a broader background than it is possible to provide in the four-year engineering curricula can develop a program that includes a well-rounded cultural education in addition to an engineering specialty.

Each student in this program has advisers in both colleges who assist him in planning a program of study to meet his needs and the requirements for both degrees. Most combinations of engineering and liberal arts curricula may be completed in ten semesters, provided the student does not have deficiencies in the entrance requirements of either college.

Most engineering curricula can be combined with one of a variety of liberal arts and sciences majors including languages, social sciences, humanities, speech communication, and philosophy. This combined program operates under the following conditions:

- Students entering the program must meet admission requirements for both colleges. (See the Admissions Chart on pages 46 and 48.)
- A student who starts in the program and decides to transfer from it is subject to the existing graduation requirements of the college of his choice.
- The degrees of Bachelor of Science in Engineering and Bachelor of Arts or Bachelor of Science in Liberal Arts and Sciences are awarded simultaneously.

No student in the combined program is permitted to receive a degree from either college before the completion of the entire program.

- Any student entering this program from high school with his liberal arts and sciences foreign language requirement partially or completely fulfilled is required to substitute for these hours an equivalent number of hours in the humanities or social sciences.
- Students electing advanced ROTC or NROTC are required to meet these commitments in addition to the combined program as outlined.
- Students having 75 or more hours of transfer credit are not advised to enter this program since they cannot ordinarily complete it in five years.
- Students transferring from other colleges and universities must plan to complete at least one year in the College of Liberal Arts and Sciences at Urbana-Champaign and one year in the College of Engineering at Urbana-Champaign in order to satisfy residence requirements if both degrees are to be granted here.
- Students are expected to maintain at least a 3.5 (A=5.0) grade-point average to be accepted or continued in the program.

During the first year students are enrolled in the common freshman program for engineers which is taken in the College of Engineering. (See page 210.) Students are enrolled in the College of Liberal Arts and Sciences for the second and third years and in the College of Engineering for the fourth and fifth years. A typical combined program follows.

SECOND YEAR	FIRST SEMESTER HOURS	SECOND SEMESTER HOURS
Biological science	4	4
Calculus and analytic geometry	5	
Humanities or social sciences	4	
Language	4	4
Liberal arts and sciences major		3
Physics (heat, electricity, and magnetism)		4
Total	17	15
THIRD YEAR		
Engineering subjects		6-8
Humanities or social sciences	4	4
Language	4	4
Liberal arts and sciences major	6	3
Physics (wave motion, sound, light, and modern physics)	4	
Total	18	17-19
FOURTH YEAR		
Engineering subjects	15	18
Humanities or social sciences	4	
Total	19	
FIFTH YEAR		
Engineering subjects	15-17	18

It may be necessary to adjust the above program to allow the student to take more hours in his L.A.S. program.

For further information about this program, students should write to the Office of the Associate Dean in either the College of Engineering or the College of Liberal Arts and Sciences at the Urbana-Champaign campus.

Affiliations with Other Liberal Arts Colleges

Through a program of affiliation between the College of Engineering and a number of liberal arts colleges, students may enroll in a five-year program and earn a bachelor's degree from one of these colleges and at the same time earn a bachelor's degree in engineering from the University of Illinois at Urbana-Champaign. In

general, students spend the first three years at the liberal arts college and the final two years at the University of Illinois at Urbana-Champaign.

Increasing numbers of engineering graduates enter leadership roles in industry and government and require a greater understanding of the impact of technology on society. The five-year program encourages a student to develop a broad understanding of the social sciences and humanities while he strives for excellence in technical studies. These affiliations have the added benefit of allowing the student to take his preengineering studies at a liberal arts school chosen on the basis of geographical location, prestige, religious principles, family circumstances, or other personal reasons.

Colleges which are affiliated with the College of Engineering are:

Adrian College
Adrian, Michigan

Augustana College
Rock Island, Illinois

Beloit College
Beloit, Wisconsin

Butler University
Indianapolis, Indiana

Carthage College
Kenosha, Wisconsin

DePaul University
Chicago, Illinois

Eastern Illinois University
Charleston, Illinois

Elmhurst College
Elmhurst, Illinois

Greenville College
Greenville, Illinois

Illinois Benedictine College
Lisle, Illinois
(formerly St. Procopius College)

Illinois College
Jacksonville, Illinois

Illinois State University
Normal, Illinois

Illinois Wesleyan University
Bloomington, Illinois

Loras College
Dubuque, Iowa

MacMurray College
Jacksonville, Illinois

McKendree College
Lebanon, Illinois

Monmouth College
Monmouth, Illinois

Northern Illinois University
DeKalb, Illinois

Olivet Nazarene College
Kankakee, Illinois

Rockford College
Rockford, Illinois

Saint Joseph's College
Rensselaer, Indiana

Shimer College
Mt. Carroll, Illinois

Wartburg College
Waverly, Iowa

Western Illinois University
Macomb, Illinois

Wheaton College
Wheaton, Illinois

Yankton College
Yankton, South Dakota

Cooperative Engineering Education Program

A five-year program in cooperative engineering education is available to students in all curricula in the college and to students in chemical engineering. Students in the program alternate periods of attendance at the University with periods of employment in industry or government. The employment is an essential element in the educational process and is related to the student's field of study. The diversified work assignments provide the student with a variety of experiences related to his studies. These assignments increase in difficulty and responsibility with each succeeding period off campus. A list of participating employers may be obtained by writing to the Cooperative Engineering Coordinator, University of Illinois at Urbana-Champaign, 109 Engineering Hall, Urbana, Illinois 61801.

Students wishing to join the program must first enroll in the College of Engineering at the University of Illinois at Urbana-Champaign. (Chemical engineers would enroll in the College of Liberal Arts and Sciences.) Freshmen are encouraged to explore the benefits of the co-op program during their first semester and should apply during their second semester for an off-campus educational assignment. If accepted by a participating employer the freshman will have his first off-campus educational assignment scheduled during the summer following his freshman year or he will attend the summer session and have his first off-campus assignment during the fall semester following his freshman year. Typical schedules are illustrated in a co-op brochure available from the cooperative engineering coordinator.

Junior college transfer students and other transfer students are eligible to participate in the program and should contact the cooperative engineering coordinator as soon as they decide to participate in the program. Application for the co-op program will, in most cases, precede a formal application for admission to the University of Illinois and acceptance into the co-op program does not imply later admission to the University should the transfer student fail to meet normal competitive admission requirements.

The cooperative engineering coordinator, after receiving full credentials and information from the junior college preengineering student, will help the student plan a five-year educational program which will include periods of study at the junior college, periods of study at the University, and four or five off-campus educational assignments with the participating co-op employer. The first one or two off-campus assignments scheduled will probably be completed prior to transfer to the University.

Students enrolled in the cooperative education program are registered in the University as full-time students for the entire five years that the program requires. Appropriate entries indicating participation in the co-op program are entered on the student's official transcript each semester and summer that he is enrolled. Upon successful completion of the program, the student is awarded a certificate signed by the dean of the college and the off-campus co-op coordinator in addition to receiving the regular diploma awarded for completing the degree requirements.

College Option in Bioengineering

Bioengineering is a broad, interdisciplinary field that brings together engineering, biology, and medicine to create new techniques, new devices, and new understanding of living systems to improve the quality of human life. Its practice ranges from the fundamental study of the behavior of biological materials to the design and development of medical instruments.

Any of the existing engineering curricula can provide a good foundation for work in bioengineering. However, the engineering undergraduate needs additional education in the biologically oriented sciences to obtain a strong background for bioengineering. With such a background the student should be able to progress rapidly on the graduate level in any branch of bioengineering. In industry the graduate will be competent to handle engineering tasks which are related to biology.

The courses shown below have been selected specifically for the undergraduate engineering student. There are three possible alternatives which can be selected to meet the individual student's plans, designated A, B, and C. The listing of bioengineering courses is not complete, but represents examples of courses which are currently available. An additional course in organic chemistry would be required for entrance to most medical schools. A minimum of 16 hours is required for the option.

	ALTERNATIVES		
BIOLOGY CORE	**A**	**B**	**C**
Chem. 131 — Elementary Organic Chemistry	3	3	3
Physl. 103 — Introduction to Human Physiology		4	
Physl. 301[1] — General Physiology	3	3	3
Physl. 303 — General Physiology Laboratory	2	2	2
Physl. 302[1] — Experimental Animal Physiology			3
Physl. 304 — Experimental Physiology Laboratory		2	2
V.M.S. 315 — Veterinary Physiology	5		
Total hours for the biology core	13	14	13

[1] Biology prerequisites can be waived by the instructor for advanced engineering students. Engineering students must obtain permission from the associate dean, 207 Engineering Hall, before registration.

BIOENGINEERING AND RELATED COURSES (one or more)	HOURS
Bioen. 199 — Introduction to Bioengineering	1
Bioen. 270 — Individual Study	0-4
Eng. H. 297 — Honors Projects in Bioengineering	3
Bioen. 306 — Mechanical Properties of Biological Materials	3
Bioen. 308 — Implant Materials for Medical Applications	3
Bioen. 370 — Special Topics in Bioengineering	0-4
Bioen. 375 (same as E.E. 375) — Modeling of Biological Systems	3
Bioen. 377 (same as E.E. 377) — Biomedical Instrumentation	3
T.A.M. 393 (same as M.E. 393XX) — Bio-Fluid Mechanics	3-4
M.E. 393 WW — Heat and Mass Transfer in Bioengineering	3-4
E.E. 374 — Ultrasonic Techniques	3
Nuc. E. 349 (same as C.E. 349) — Fundamentals of Radiation Protection	3
I.E. 305 (same as Physl. 305) — Principles of Ergonomics	4
I.E. 306 (same as Physl. 306) — Quantitative Methods of Ergonomics	4
Chem. 323 — Applied Electronics for Scientists	4
Departmental specialties related to bioengineering (taken as electives)	3-4

Thesis

A senior of high standing in any curriculum, with the approval of the department concerned, may substitute for one or more technical courses an investigation of a special subject and write a thesis.

Special Curricula

Students of high scholastic achievement, with exceptional aptitudes and interests in special fields of engineering and their application, may be permitted to vary the course content of the standard curriculum in order to emphasize some phases not included or not encompassed by the usual course substitution and selection of electives. These unwritten curricula, however, include all the fundamental courses of the standard curricula, the variations being made mainly in the so-called applicatory portions of the standard curricula of the college. The program of studies of each student permitted to take such a special curriculum must be approved by a committee of the college, in consultation with the head of the department in which the student is registered, and with a faculty member of the college. This faculty member automatically becomes the student's adviser in charge of registration and other matters pertaining to the approved program.

Advanced ROTC Training Combined with Engineering

Students in the College of Engineering may elect to participate in the Reserve Officers' Training Program and earn a commission in the United States Army Reserve, United States Air Force Reserve, or the United States Naval Reserve. A commission is awarded simultaneously with the awarding of the Bachelor of Science degree in an engineering field. Participation in these programs is limited to students who apply and are selected by the army, air force, or navy units at the University. A monthly stipend is paid to those selected for advanced military training.

These programs require from one to three summer camps or cruises as well as the earning of a specified number of credits in advanced military courses. Credits earned appear in all academic averages computed by the College of Engineering. Certain curricula may use only a limited amount of these credits in fulfillment of graduation requirements. Students should plan on taking nine semesters to obtain both a bachelor's degree in engineering and a commission in the ROTC program. For further information on these programs, write directly to the Professor of Military Science, the Professor of Aerospace Studies, or the Professor of Naval Science. (See pages 107, 110, and 115.)

Exchange Scholarship at Munich, Germany

The College of Engineering has an exchange scholarship with the Technical University in Munich, Germany. Under the terms of the scholarship, a University of Illinois student is given a tuition scholarship at the Technical University and he receives a stipend of 5,700 DM per year. A student selected by the Technical University will receive a tuition scholarship at the University of Illinois at Urbana-Champaign and an equivalent cash stipend. Students are responsible for their own transportation expenses.

Students eligible for study in Germany must be enrolled in one of the following curricula: civil engineering, electrical engineering, industrial engineering, mechanical engineering, metallurgical engineering, or engineering physics. It is expected that the full year's study abroad will be used toward graduation in the student's curriculum at Urbana-Champaign.

To participate in the program, a student must have completed Ger. 104 or the equivalent and have finished his sophomore studies in engineering at the Urbana-Champaign campus. In addition, the student must be an outstanding scholar who will be an excellent representative of the University of Illinois. He must also be a U.S. citizen.

The program is under the general administration of the Engineering College Honors Council, although the recipient need not be an honors student if he has an outstanding undergraduate record.

On-the-Job Training in Foreign Countries

IAESTE (International Association for the Exchange of Students for Technical Experience) is a private, nonprofit organization which enables students of engineering, architecture, and the sciences to obtain on-the-job training in foreign countries. Any student, undergraduate or graduate, who is enrolled in good standing at the University and who has completed at least the sophomore year of studies may apply. Generally, the maintenance allowance is adequate to cover living expenses while in training. Further information about these opportunities may be obtained from the College of Engineering.

HONORS PROGRAMS

Honors at Graduation

Honors awarded at graduation to superior students are designated on the diploma as Honors, High Honors, or Highest Honors. The cumulative grade-point average for each designation is set by the college faculty through the Engineering Honors Council.

Highest Honors may be awarded to any student eligible for High Honors meeting one or the other of the following criteria upon recommendation of his department: (1) Notably outstanding performance both in courses and in supplementary activities (ordinarily the basis for such a citation includes completion of an undergraduate thesis or special project), or (2) a very high cumulative University of Illinois grade-point average of 4.8 or higher.

Edmund J. James Scholars

The honors program in engineering is a part of the University James Scholars Program and was established to recognize and develop the talents of superior students. Engineering students in this program are known as James Scholars in Engineering. A student is assigned to an honors adviser in his department, and receives special consideration in the selection of a course program to meet his specific needs. Honors courses and sections are available in most departments for honors students.

Participation in the James Scholars Program is based on special honors work each semester and the following requirements. New freshmen must self-select to be admitted to the University as a James Scholar. They may apply during summer advance enrollment or during the first three weeks of the fall semester. To qualify, freshmen must meet two of the following three conditions: (1) rank in the top 10 percent of their high school graduating class; (2) have an ACT Math Score of 34 or higher; (3) have an ACT Composite Score of 31 or higher. All upperclassmen who achieve a cumulative grade-point average of 4.5 or higher may request to become James Scholars in Engineering. Transfer students may be accepted into the program upon request and the completion of one normal semester in engineering with a grade-point average of 4.5 or higher. In addition, they must present a superior transfer record. All participants must maintain a 4.5 (A = 5.0) University of Illinois cumulative grade-point average or equivalent academic distinction.

Awards

Competitive prizes, scholarships, fellowships, and miscellaneous awards which are offered to students in the College of Engineering are listed below. The college publishes an annual brochure describing each award in detail and listing the most recent winners. Copies of this brochure may be obtained from the Office of the Associate Dean, College of Engineering, University of Illinois at Urbana-Champaign, 207 Engineering Hall, Urbana, Illinois 61801.

Air Conditioning, Refrigeration, and Heating Award
American Institute of Aeronautics and Astronautics Awards
American Institute of Industrial Engineers Award
American Institute of Mining and Metallurgical Engineers' Student Technical Paper Writing Contest
American Society of Agricultural Engineers Honor Awards
American Society of Agricultural Engineers (Chicago Chapter) Honored Member Scholarship Award
American Society of Civil Engineers Awards
American Society of Mechanical Engineers Prizes
Ira O. Baker Prizes
M. T. Dural Undergraduate Research Prize
Elmendorf World Citizenship Award
Eta Kappa Nu Award
Edward S. Fraser Award
General Engineering Project Design Award
Randolph P. Hoelscher Award
Honeywell Award
Institute of Electrical and Electronics Engineers Award
Harvey H. Jordon Award
E. W. Lehmann Award
O. A. Leutwiler Award
Machinery Award
H. L. Marcus–L. B. Phillips Award
Morrow Award
Mueller Company Award
W. E. O'Neil Civil Engineering Fellowship Award
Thomas A. Peebles Award
Stanley H. Pierce Award
Pi Tau Sigma Award
W. H. Rayner Surveying Award
Ernest A. Reid Open House Award
Lisle Abbott Rose Memorial Award
Fred B. Seely Award

J. O. Smith Award
Tau Beta Pi Fellowships
Tau Beta Pi Outstanding Freshman Award
A. L. Thomas Award
C. C. Wiley Traveling Award
Grace Wilson Award

ELECTIVES

Humanities and Social Sciences Electives

All College of Engineering students are required to complete 18 hours of humanities and social sciences (in addition to rhetoric), including one sequence in humanities and one sequence in social sciences. The two sequences cannot be in the same department. A sequence is defined as any combination of at least 6 hours of approved courses (see list below) taught by a single department, or any of the interdisciplinary sequences listed below. Seminar, honors, and thesis courses cannot be used.

APPROVED COURSES IN HUMANITIES

Foreign languages[1] — all courses except (1) teachers' courses, e.g. 280-282, 382; (2) courses required for entrance
African studies — all courses
Arch. — 211, 212, 310-317
Art — 105-107, 110-112, 115-116, 185-186, 211-213, 217-224, 301, 303-305, 308-309, 311-317, 321-328, 330-332, 335-336, 340
As. St. — 295, 303
Cl. Arc. — all courses
Cl. Civ. — all courses
C. Lit. — all courses
Engl. — all courses except 302, 381, 385
Foreign literature in translation — Chin. 207-208, 311-312; Japan. 205-206; Pers. 205-206, 309; Sansk. 309; Cl. Civ. 301-302; Fr. 255-256; Ger. 201-204; Arab. 307-308; Hindi 309-310; Russ. 115-116, 315, 317
Hist. — all courses except 290, 295, 298
Human. — all courses
Music — 100-102, 107, 110, 113, 115, 130-131, 213-214, 310-317
Phil. — all courses except 102, 291, 333-334
Rel. St. — all courses
Sp. Com. — 177-178, 207, 213, 243, 307-308, 311-312, 319, 346, 352, 361-362, 366, 371-372
Theat. — 101-105, 263, 352, 361-362, 366, 368

APPROVED COURSES IN SOCIAL SCIENCES

Anth. — all courses except 336, 337
Arch. — 379
B. Adm. — 200
Comm. — all courses
Econ. — all courses except 171-173, 272, 367, 368, 375
Eng. H. — 196-197
G.E. — 220, 230, 292, 304
Geog. — all courses except 102, 185, 211, 272, 306, 313, 370-371, 373, 378
H.P. Ed. — 300-302, 304-305, 315, 385-386
Journ. — 215, 217-218, 220, 231, 241, 251
L.I.R. — all courses except 360
L.A. — 213, 214
L.A. St. — 201

[1] Credit will not be granted for foreign language courses which duplicate high school credit. If one semester of duplication is validated through course placement examinations, credit may be granted.

Ling. — all courses except 375-376, 388-389
Min. E. — 302
Pol. S. — all courses except 289-293
Psych. — all courses except 135, 211, 217, 235, 258, 306-307, 311, 330-333, 335, 338, 345-346, 356, 390
R. Soc. — all courses
Soc. W. — 310-311, 326, 351
Soc. — all courses except 184-185, 190, 332, 385-387
U.P. — 171, 348, 351, 373-374, 378, 380

INTERDISCIPLINARY SEQUENCES IN HUMANITIES

Cl. Civ. 201 and Art 301 or 304
Cl. Civ. 202 and Art 305
Cl. Civ. 301 and Phil. 303
Cl. Civ. 301 and Pol. S. 393
Music 113 and 115 and Art 115
Art 111 and 112 plus any of Arch. 310-317

INTERDISCIPLINARY SEQUENCES IN SOCIAL SCIENCES

Econ. 101 and Min. E. 302
Soc. 100 and L.A. St. 201
Pol. S. 191 and L.A. St. 201

Particularly Recommended Courses

These courses have been suggested by the departments, or appear particularly appropriate. This list is necessarily incomplete and somewhat arbitrary.

HUMANITIES

Arch. 211-212
Art 111-112
Engl. 241, 249
Foreign literature in translation — all courses
Hist. 348, 349
Human. 215-216
Music 130-131
Phil. 270, 306, 327
Sp. Com. 177-178
Theat. 352

SOCIAL SCIENCES

Anth. 102, 260
Comm. or Journ. 217
Econ. 101, 255, 300-301, 315
Geog. 104-105, 210, 214, 241, 381-383
L.I.R. 318
Ling. 200, 300
Pol. S. 110 or 312; 150 or 191, and 345; 305-306
Psych. 103, 357
Soc. 100, 218, 300, 318, 340, 373
U.P. 171, 351, 380

ALL INTERDISCIPLINARY SEQUENCES

TECHNICAL ELECTIVES

Each engineering curriculum offers some elective opportunities which may be specified as technical or nontechnical. All technical elective courses must be chosen from departmentally approved lists.

Although some restrictions are imposed by departments, the following courses are generally accepted as technical electives.

Astr. 301, 306, 307, 314, 321, and 357.
Chemical engineering, chemistry, computer science, and mathematics: all 200- and 300-series courses except Math. 202 and 203.
Engineering: all 200- and 300-series courses not required in the student's curriculum except G.E. 220, 281, 282, 288, 290, 292, and 304; I.E. 230 and 239; and Min. E. 302.
F.S. 363
Geology: all courses except Geol. 102.

Free Electives

These electives are selected at the prerogative of the student except as noted below.

Credit will not be allowed for courses of a remedial nature such as mathematics below analytic geometry, or basic military training.

Total transfer credit in required basic courses in mathematics (through integral calculus), physics, rhetoric, freshman chemistry, and engineering graphics may be used for free electives only if the credit covers topics beyond those in equivalent courses at the University of Illinois. Further restrictions on the acceptance of transfer credit for free electives may be imposed by the departments with the approval of the associate dean.

Credit-No Credit Option

The credit-no credit option became effective with the beginning of the spring semester 1975. This option is designed to encourage student exploration into areas of academic interest which they might otherwise avoid for fear of poor grades. All students considering this option are cautioned that many graduate and professional schools consider applicants whose transcripts bear a significant number of nongrade symbols less favorably than those whose transcripts contain none or very few.

A. All students
   1. Credit-no credit courses are not counted toward the grade-point average but are included as part of the total credit hours. (Grades of S, U, CR, NC, and Pass are reported on the University official transcript.)
   2. Instructors are not informed of those students in their classes who are taking work under the credit-no credit option, and they report the usual letter grades at the end of the course. These grades are automatically converted to CR or NC (for credit or no credit).
   3. Grades of C or better are required in order to earn credit.
   4. Final grades of CR or NC are recorded on the student's permanent academic record and subsequently will not be changed to letter grades.
   5. A correspondence course student may elect the credit-no credit option prior to completion of one-eighth of the lessons contained in the course; however, should he desire to return to a letter grade, an amended credit-no credit form must be filed prior to completion of one-half of the lessons.
   6. Courses taken under the credit-no credit option, either in residence or in correspondence, may be dropped only in accordance with the normal procedures for dropping courses.

B. Undergraduate students
   1. Any undergraduate student in good academic standing (not on probation) may elect the credit-no credit system. Students not in residence, but enrolling in correspondence courses, may elect the credit-no credit option provided they are in good academic standing.
   2. To elect the credit-no credit option, the student must obtain the approval of his adviser or, in the case of a correspondence course, his adviser or college office.
   3. A student who goes on probation after enrolling must change his program to eliminate the credit-no credit option.
   4. A maximum of 18 semester hours earned under the credit-no credit option

may be applied toward a degree at the Urbana-Champaign campus of the University. A correspondence course taken on a credit-no credit basis will be included in the 18 semester hour maximum limit allowed. A full-time student may take a maximum of two courses each semester under the credit-no credit option. Part-time students may take one course each semester under this option. Summer session students may take one course under the credit-no credit option.

5. Any lower or upper division course may be chosen under the credit-no credit option except courses used to satisfy the University's general education requirements, or in courses designated by name or area by the major department for satisfying the major or field of concentration, or those specifically required by name by the college for graduation.
6. In cases of subsequent change of major or field of concentration, courses previously taken under the credit-no credit option in the new field may qualify for meeting major requirements.
7. An undergraduate student must exercise the credit-no credit option for a course taken in residence only during registration or within the first two weeks of instruction in the semester (only during registration or within the first week of instruction during the summer session); however, he may elect to return to the regular grade option by filing an amended request within the first eight weeks of the semester (first four weeks of instruction during the summer session). The credit-no credit option form must be properly approved and deposited in the college office. (See paragraph A (5) above for correspondence courses.)

C. Engineering students

In addition to the preceding guidelines, the following four items are provided to clarify situations that are of specific interest to engineering undergraduate students.

1. Six hours of social sciences and 6 hours of humanities, completed to meet University general education requirements, must be taken for a grade. The remaining 6 hours of social sciences and/or humanities may be taken for credit-no credit regardless of whether they are used to meet sequence requirements.
2. Students must have at least 14 hours of course work completed in a given semester to be considered for the Dean's List and other honors. The use of credit-no credit in this regard should be checked against college requirements before the credit-no credit election is made.
3. Technical electives and secondary field electives will not be eligible for the credit-no credit option unless specifically approved by the major department.
4. Free electives will be eligible for credit-no credit option.
5. Pass-fail forms will be used for the credit-no credit option until new forms are printed.

Curricula

CURRICULUM IN AERONAUTICAL AND ASTRONAUTICAL ENGINEERING

For the degree of Bachelor of Science in Aeronautical and Astronautical Engineering

This curriculum provides a strong fundamental background in engineering and applied science with emphasis on aircraft and space flight engineering. The program is designed to give the student a basic engineering education applicable to related engineering disciplines including graduate study. In addition, the curriculum is continually being broadened to include such related areas as noise pollution, air

pollution, human factors, and transportation. Up to 13 hours of free and technical electives can be used to provide a diversified program of study.

FIRST YEAR — FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry	5
Humanities or social sciences elective[1]	3
Total	15

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	3
Chem. 106 — General Chemistry Lab	1
Math. 131 — Calculus and Analytic Geometry	3
Phycs. 106 — General Physics (Mechanics)	4
Rhet. 105 — Principles of Composition	4
Humanities or social sciences elective[1]	3
Total	18

SECOND YEAR

Math. 141 — Calculus and Analytic Geometry	5
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
T.A.M. 156 — Analytical Mechanics	5
Humanities or social sciences elective[1]	3-4
Total	17-18

C.S. 101 — Introduction to Automatic Digital Computing	3
Math. 345 — Differential Equations and Orthogonal Functions	3
M.E. 207 — Thermodynamics	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Humanities or social sciences elective[1]	3-4
Total	16-17

THIRD YEAR

A.A.E. 212 — Aerodynamics I	4
A.A.E. 224 — Flight Structures I	4
A.A.E. 254 — Aerospace Systems I	3
Math. 343 — Advanced Calculus	3
Elective[2]	3
Total	17

A.A.E. 213 — Aerodynamics II	4
A.A.E. 225 — Flight Structures II	4
A.A.E. 233 — Aircraft Propulsion	3
A.A.E. 255 — Aerospace Systems II	4
Humanities or social sciences elective[1]	3-4
Total	18-19

FOURTH YEAR

A.A.E. 260 — Aerospace Laboratory I	2
A.A.E. 292 — Seminar	1
Humanities or social sciences elective[1]	3-4
Electives[2]	11
Total	17-18

A.A.E. 241 — Aerospace Design	3
A.A.E. 263 — Aerospace Laboratory II	2
Electives[2]	11
Total	16

[1] One hundred thirty-four hours, excluding physical education, are required for graduation, of which 18 must be in social sciences and humanities. These requirements are discussed on page 219.

[2] Twenty-five hours of elective credits are required for graduation. These electives must contain at least 6 hours from list A below and 3 hours from list B. In addition, credit is required in at least one 300-level aeronautical and astronautical engineering course. Six hours of electives are free electives. The remaining shall be technical electives.
A: E.E. 220, 229, 230, 231, 232, 233, 234, 235, 244, 260; Phycs. 341, 342.
B: Met. E. 334; Phycs. 383.

CURRICULUM IN AGRICULTURAL ENGINEERING

For the degree of Bachelor of Science in Agricultural Engineering

Agricultural engineering is the application of engineering principles to solutions of problems in agriculture. Efficient agricultural production depends on sophisticated systems of men, equipment, processes, and natural resources. Agricultural engineers are involved in the design of systems which include mechanization of animal and

crop production, soil moisture control, crop processing, materials handling, and structures for storage and shelter. Important design constraints are economics, conservation of materials and energy, safety, and environmental quality. Graduates are employed by industry and government in research, education, manufacturing, and applications. A five-year, dual degree in both engineering and agriculture is available. (See page 140.)

FIRST YEAR	FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry		3
Chem. 105 — General Chemistry Lab		1
Eng. 100 — Engineering Lecture		0
G.E. 103 — Engineering Graphics I		3
Math. 120 — Calculus and Analytic Geometry		5
Humanities or social sciences electives[1]		4
Total		16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	3
Chem. 106 — General Chemistry Lab	1
Math. 130 — Calculus and Analytic Geometry	5
Phycs. 106 — General Physics (Mechanics)	4
Biological and agricultural sciences elective[2]	3
Total	16

SECOND YEAR	
Ag. E. 126 — Engineering in Agriculture I	3
Math. 140 — Calculus and Analytic Geometry	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
T.A.M. 150 — Analytical Mechanics (Statics)	2
Rhet. 105 — Principles of Composition	4
Total	16

Ag. E. 127 — Engineering in Agriculture II	3
C.S. 101 — Introduction to Automatic Digital Computing	3
Econ. 101 — Elements of Economics[1]	4
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
T.A.M. 212 — Engineering Mechanics II (Dynamics)	3
Total	17

THIRD YEAR	
Agricultural engineering technical elective, group I[3]	3
E.E. 220 — Basic Electrical Engineering	3
Math. 345 — Differential Equations and Orthogonal Functions	3
T.A.M. 221 — Elementary Mechanics of Deformable Bodies	3
T.A.M. 223 — Mechanical Behavior of Solids	1
Humanities or social sciences elective[1]	3
Total	16

Agricultural engineering technical elective, group I[3]	3
Ag. E. 298 — Undergraduate Seminar	1
C.E. 261 — Structural Theory I, or M.E. 220 — Mechanics of Machinery	3-4
M.E. 209 — Thermodynamics and Heat Transfer	3
T.A.M. 235 — Fluid Mechanics	4
Total	14-15

FOURTH YEAR	
Agricultural engineering technical elective, group II[3]	3
Biological and agricultural sciences elective[2]	4
Humanities or social sciences elective[1]	3
Technical elective	3-4
Free elective	3
Total	16-17

Agricultural engineering technical elective, group II[3]	3
Ag. E. 299 — Undergraduate Thesis	2
Biological and agricultural sciences elective[2]	4
Humanities or social sciences elective[1]	4
Free elective	3
Total	16

[1] Students must complete Econ. 101 and 14 additional hours of humanities and social sciences from the approved college list on page 219.

[2] Students must complete 10 to 12 hours from biological and agricultural sciences electives.

[3] Each student must have 18 to 20 hours of technical electives. The student selects from the following: (1) C.E. 261, or M.E. 220; (2) two courses from agricultural engineering technical electives, group I, and two courses from group II; and (3) additional courses from other technical electives. Minimum total for biological and agricultural sciences and technical electives is 30 hours.

Biological and Agricultural Sciences Electives

The 10 to 12 hours of biological and agricultural sciences are to be chosen from the following:

Agricultural economics 220, 324, 325
Agronomy 101, 121, 308, 322, 326, 337
Animal science 307
Biology 100, 101
Botany 100
Entamology 101
Geology 101, 250
Micrabiology 100
Zoology 104

Agricultural Engineering Technical Electives

GROUP I	HOURS
Ag. E. 236 — Machine Characteristics and Mechanisms	3
Ag. E. 256 — Surveying Agricultural and Forest Lands	2
Ag. E. 287 — Environmental Control for Plants and Animals	3
Ag. E. 311 — Instrumentatian and Measurements	3-4
Ag. E. 340 — Introduction to Applied Statistics	4

GROUP II	
Ag. E. 277 — Design af Cancrete and Steel Structures for Agriculture	3
Ag. E. 336 — Design af Agricultural Machinery	3
Ag. E. 346 — Tractars and Prime Mavers	3
Ag. E. 356 — Soil Canservatian Structures	3
Ag. E. 357 — Land Drainage	3
Ag. E. 387 — Agricultural Pracess Engineering	3

Other Technical Electives

A student may choose any course which satisfies the college requirements for technical electives.

Students desiring to specialize in a specific area of agricultural engineering may use the following lists as a guide in choosing their technical electives.

POWER AND MACHINERY	HOURS
Ag. E. 236 — Machine Characteristics and Mechanisms	3
Ag. E. 311 — Instrumentatian and Measurements	3-4
Ag. E. 336 — Design af Agricultural Machinery	3
Ag. E. 340 — Introduction to Applied Statistics	4
Ag. E. 346 — Tractors and Prime Mavers	3
M.E. 224 — Design af Machine Elements	3
M.E. 234 — Heat Treatment af Metals	3

PROCESSING	
Ag. E. 236 — Machine Characteristics and Mechanisms	3
Ag. E. 287 — Environmental Cantral far Plants and Animals	3
Ag. E. 311 — Instrumentation and Measurements	3-4
Ag. E. 336 — Design af Agricultural Machinery	3
Ag. E. 340 — Introduction to Applied Statistics	4
Ag. E. 387 — Agricultural Process Engineering	3
E.E. 306 — Electronics and Instrumentation, *and*	3
E.E. 307 — Electronics and Instrumentation Labaratory, *or*	1
E.E. 328 — Application and Control of Electromechanical Devices, *and*	3
E.E. 329 — Electromechanical Devices Laboratory	1

SOIL AND WATER

Ag. E. 277 — Design of Concrete and Steel Structures for Agriculture 3
Ag. E. 287 — Environmental Control for Plants and Animals 3
Ag. E. 311 — Instrumentation and Measurements 3-4
Ag. E. 340 — Introduction to Applied Statistics 4
Ag. E. 356 — Soil Conservation Structures 3
Ag. E. 357 — Land Drainage 3

STRUCTURES AND ENVIRONMENT

Ag. E. 277 — Design of Concrete and Steel Structures for Agriculture 3
Ag. E. 287 — Environmental Control for Plants and Animals 3
Ag. E. 311 — Instrumentation and Measurements 3-4
Ag. E. 340 — Introduction to Applied Statistics 4
C.E. 214 — Properties and Behavior of Concrete 2
C.E. 262 — Structural Theory II 3

CURRICULUM IN CERAMIC ENGINEERING

For the degree of Bachelor of Science in Ceramic Engineering

Ceramic engineering deals with the processing of naturally occurring minerals or synthetic inorganic materials that lead to products whose characteristic usefulness is ordinarily realized by high-temperature treatments or service. The ceramic engineer serves as a high-temperature materials specialist in a modern engineering team devoted to research, development, operation, or sales. He must not be solely preoccupied by analysis, but must also be able to synthesize new ceramic materials and join the engineering search for improved processing, properties, and products.

FIRST YEAR — FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry	5
Rhet. 105 — Principles of Composition	4
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	3
Chem. 106 — General Chemistry Lab	1
Math. 130 — Calculus and Analytic Geometry	5
Phycs. 106 — General Physics (Mechanics)	4
Humanities or social sciences elective[1]	3
Total	16

SECOND YEAR

Cer. E. 201 — Ceramic Crystal Chemistry	3
Math. 140 — Calculus and Analytic Geometry	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
Humanities or social sciences elective[1]	3
C.S. 101 — Introduction to Automatic Digital Computing	3
Total	16

Cer. E. 202 — Ceramic Materials and Processes	3
Math. 345 — Differential Equations and Orthogonal Functions	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
T.A.M. 154 — Analytical Mechanics (Statics and Dynamics)	4
Humanities or social sciences elective[1]	3
Total	17

THIRD YEAR

Cer. E. 205 — Phase Equilibria in Ceramic Systems	3
Cer. E. 314 — Chemistry and Technology of Glass	3
Cer. E. 221 — Pyrometry	2
Chem. 245 — Physical Chemistry for Engineers or equivalent[2]	3
T.A.M. 221 — Elementary Mechanics of Deformable Bodies	3
Humanities or social sciences elective[1]	3
Total	17

Cer. E. 208 — Thermal Processing	3
Cer. E. 216 — Rate Processes in Ceramic Engineering	3
Ceramic engineering elective[2]	3
Technical elective	3
Chemistry or physics elective[2]	3
Humanities or social sciences elective[1]	3
Total	18

FOURTH YEAR

E.E. 220 — Basic Electrical Engineering	3
Humanities or social sciences elective[1]	3
Technical elective	2
Ceramic engineering electives[2]	9
Total	17
Electrical applications elective[2]	3
Free electives	6
Ceramic engineering elective[2]	3
Technical elective	3
Total	15

[1] Consult the college list of approved courses on page 219.
[2] Consult departmental adviser for list of approved courses.

CURRICULUM IN CHEMICAL ENGINEERING

For the degree of Bachelor of Science in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences. (See page 330.)

CURRICULUM IN CIVIL ENGINEERING

For the degree of Bachelor of Science in Civil Engineering

The civil engineering curriculum provides a systematic, integrated foundation in the physical and engineering sciences and mathematics, thereby permitting the rational development of engineering methods as applied to the design of bridges, buildings, dams and hydraulic structures, nuclear installations, transportation facilities, sanitary and environmental engineering systems and facilities, surveying and mapping systems, and other engineering projects. It includes a strong sequence in the humanities and social sciences for a better understanding of the society of which the civil engineer is a part. The flexibility of the curriculum permits a student, during his last two years, to pursue either a broad program representing most or all of the principal areas of civil engineering endeavor or, depending upon his aptitude and interests, a specialized program in one or more specific technical areas.

Students interested in environmental engineering in civil engineering follow the curriculum in civil engineering, selecting suitable technical electives in the third and fourth years. This program leads to the degree of Bachelor of Science in Civil Engineering. Degrees in environmental engineering in civil engineering are offered only at the graduate level.

The curriculum permits substantial flexibility in course selection during the last two years so that the student, in consultation with his adviser, may plan a viable program directed toward his particular educational objectives in civil engineering. Shown below is the format for each year of study.

FIRST YEAR — FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1
G.E. 103 — Engineering Graphics	3
Math. 120 — Calculus and Analytic Geometry	5
Econ. 101 — Elements of Economics	4
Eng. 100 — Engineering Lecture	0
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	3
Chem. 106 — General Chemistry Lab	1
Math. 131 — Calculus and Analytic Geometry	3
Rhet. 105 — Principles of Composition	4
Phycs. 106 — General Physics (Mechanics)	4
Total	15

SECOND YEAR

C.E. 195 — Introduction to Civil Engineering	1	C.E. 292 — Design and Planning of Civil Engineering Systems	3
C.S. 101 — Introduction to Automatic Digital Computing	3	C.E. 293 — Stochastic Concepts in Civil Engineering	3
Math. 141 — Calculus and Analytic Geometry	5	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	T.A.M. 212 — Analytical Mechanics (Dynamics)	3
T.A.M. 152 — Analytical Mechanics (Statics)	3	T.A.M. 221 — Elementary Mechanics of Deformable Bodies	3
Total	16	Total	16

THIRD YEAR

T.A.M. 235 — Fluid Mechanics	4	Introductory technical courses[1]	9
Introductory technical courses[1]	6	Technical elective[4]	3
Humanities or social sciences elective[2]	3	Humanities or social sciences electives[2]	5
Advanced mathematics[3]	3	Total	17
Total	16		

FOURTH YEAR

Introductory technical courses[1]	3	Technical electives[4]	9
Technical electives[4]	9	Humanities and social sciences elective[2]	3
Humanities or social sciences elective[2]	3	Free elective[5]	3
Free elective[5]	3	C.E. 295 — Professional Practice	0
Total	18	Total	15

[1] Each student must take at least six of the nine introductory courses in the several technical specialty areas in civil engineering as shown in Introductory Technical Courses, below.

[2] Each student is required to select 18 hours from the college-approved list of humanities and social sciences, including Econ. 101. (See page 219.)

[3] Each student must select at least one course (3 hours) of advanced mathematics, at the 300 level. This may be Math. 314, 315, 343, 345, 361, 362, 363, 383, 387, or an appropriate course approved by the program review committee.

[4] Twenty or 21 hours of technical courses must be selected by the student, in consultation with his adviser and with the approval of the department, to define a coherent program for which the Bachelor of Science degree in civil engineering may be appropriately awarded.

[5] Six semester hours of free electives must be selected in accordance with the regulations of the college and the department.

Introductory Technical Courses

	HOURS
C.E. 201 — Engineering Surveying	4
C.E. 216 — Construction Engineering	3
C.E. 220 — Materials for Transportation Facilities or,	3
C.E. 230 — Introduction to Transportation Engineering	3
C.E. 241 — Water Quality and Water Pollution	3
C.E. 255 — Introduction to Hydrosystems Engineering	3
C.E. 261 — Fundamentals of Structural Engineering	3
C.E. 280 — Foundation Engineering	3
Geol. 250 — Geology for Engineers	3
T.A.M. 224 — Behavior of Materials	3

CURRICULUM IN COMPUTER ENGINEERING

For the degree of Bachelor of Science in Computer Engineering

The program in computer engineering is administered by and is part of the offerings of the Department of Electrical Engineering. Computer engineering is con-

cerned with the organization, design, and efficient utilization of digital and analog information processing systems.

Although much of the program is elective, specific courses are indicated for most of the work in the first five semesters. This provides the student with the background in mathematics and science he needs for his study of computer engineering and allows the student time to consult with his adviser, select the areas of interest, and choose courses to give emphasis to those areas.

To qualify for registration in the electrical engineering courses specified in the first semester of the junior year of the curriculum in computer engineering, a student must have a combined grade-point average of 3.25 (A=5.0) in the mathematics, physics, computer science, and electrical engineering courses which are required in the freshman and sophomore years of the curriculum.

The following suggested curriculum indicates one way in which the student may satisfy in eight semesters the requirements for the degree of Bachelor of Science in Computer Engineering.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0
Math. 120 — Calculus and Analytic Geometry	5
Rhet. 105 — Principles of Composition	4
Humanities or social sciences elective[1]	3
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	3
Chem. 106 — General Chemistry Lab	1
Math. 130 — Calculus and Analytic Geometry	5
Phycs. 106 — General Physics (Mechanics)	4
Humanities or social sciences elective[1]	3
Total	16

SECOND YEAR

C.S. 101 — Introduction to Automatic Digital Computing	3
Math. 140 — Calculus and Analytic Geometry	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
Electives[1]	6
Total	16

E.E. 244 — Electrical Engineering Laboratory I	2
E.E. 260 — Networks I	3
Math. 345 — Differential Equations and Orthogonal Functions	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Electives[1]	4
Total	16

THIRD YEAR

E.E. 229 — Introduction to Electromagnetic Fields	3
E.E. 340 — Electronics	3
E.E. 290 — Introduction to Information Processing	3
Math. 319 — Applied Modern Algebra	3
E.E. 310 — Systems I or E.E. 308 — Transforms in Circuit and System Analysis	3
Total	15

E.E. 249 — Digital Systems Laboratory	2
Math. 361 — Theory of Probability or E.E. 266 — Probabilistic Methods in Electrical Engineering	3
E.E. 391 —Boolean Algebra and Switching Theory	3
C.S. 201 — Machine Language and Systems Programming I	3
E.E. 380 — Pulse and Digital Circuits or E.E. 342 — Advanced Electronics	3
Elective[1]	3
Total	17

[1] Forty-seven hours of electives to be selected by the student in consultation with his adviser, apportioned as follows:

- Twenty-three hours of technical electives as follows:
  Fourteen hours (not including other requirements) must be chosen from a departmentally approved list of technical courses for the computer engineering program.
  Nine hours may be chosen from other technical areas.
- Eighteen hours of humanities and social sciences from the college-approved list. (See page 219.)
- Six hours of free electives, to be selected in accordance with the regulations of the college.

FOURTH YEAR			
Electives[1]	14	Electives[1]	14

[1] Forty-seven hours of electives to be selected by the student in consultation with his adviser, apportioned as follows:

- Twenty-three hours of technical electives as follows:
  Fourteen hours (not including other requirements) must be chosen from a departmentally approved list of technical courses for the computer engineering program.
  Nine hours may be chosen from other technical areas.
- Eighteen hours of humanities and social sciences from the college-approved list. (See page 219.)
- Six hours of free electives, to be selected in accordance with the regulations of the college.

CURRICULUM IN COMPUTER SCIENCE

For the degree of Bachelor of Science in Computer Science

This curriculum is offered by the Department of Computer Science for students seeking a broad and deep knowledge of the theory, design, and application of digital computers and information processing techniques. The first two years are spent on basic work in mathematics, physics, and an introduction to the fundamental areas of computer science — computing, programming, the organization of digital machines, and numerical analysis. The third year completes the work in basic computer science, and requires electives to broaden the background of the student. During the fourth year the student is encouraged to deepen his understanding of topics in which he has particular interest and ability.

To qualify for registration in the computer science courses specified in the first semester of the junior year, a student must have a combined grade-point average of 3.25 (A=5.0) in the mathematics, physics, and computer science courses which are required in the freshman and sophomore years.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry	3	Chem. 102 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1	Chem. 106 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0	Math. 131 — Calculus and Analytic Geometry	3
Math. 120 — Calculus and Analytic Geometry	5	Phycs. 106 — General Physics (Mechanics)	4
Electives	6	Rhet. 105 — Principles of Composition	4
Total	15	Total	15
SECOND YEAR			
C.S. 121 — Introduction to Computer Programming	4	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Math. 141 — Calculus and Analytic Geometry	5	C.S. 264 — Introduction to the Structure and Logic of Digital Computers	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	C.S. 201 — Machine Language and System Programming I	3
Elective	3	Electives	5
Total	16	Total	15
THIRD YEAR			
C.S. 281 — Introduction to Computer Hardware	3	Math. 361 — Theory of Probability I	3
Math. 315 — Linear Transformations and Matrices	3	Electives	12
C.S. 257 — Introduction to Numerical Analysis	3	Total	15
Electives	7		
Total	16		

FOURTH YEAR

C.S. 321 — Information Structures 3
Electives 12
Total 15

Electives 15

Electives

The computer science curriculum contains 60 semester hours of electives. These electives are chosen by the student according to the following requirements:

- Eighteen hours must be selected in the humanities and social sciences areas as specified by the college requirements on page 219.
- Twelve hours must be selected from computer science courses numbered 300 or higher.
- At least one course must be selected from each of the following four groups:

GROUP I	GROUP II	GROUP III	GROUP IV
Math. 341	C.S. 311	C.S. 333	E.E. 379 and 380
Math. 345	C.S. 323	C.S. 391	C.S. 381
C.S. 313	C.S. 325	C.S. 394	C.S. 384
C.S. 358	C.S. 375	C.S. 395	C.S. 385
C.S. 359			C.S. 389
C.S. 373			
C.S. 383			

  Computer science courses selected from these four groups may be used to satisfy the requirement for 12 semester hours of computer science courses numbered 300 or higher.
- Twelve semester hours must consist of a goal-directed sequence of courses directed toward a study of a specific problem area related to computer use. This sequence must be approved by the student's adviser.
- A total of no more than 18 semester hours is designated as free electives.

CURRICULUM IN ELECTRICAL ENGINEERING

For the degree of Bachelor of Science in Electrical Engineering

The electrical engineering curriculum prepares students for responsible engineering positions in research, development, design, operation, sales, and administration in many fields including communications, computers, electronics, electromagnetics, and electrical power.

Although more than half of the program is elective, specific courses are indicated for most of the work in the first five semesters. This provides the student with the background in mathematics and science he needs for the study of electrical engineering and allows the student time to consult with his adviser, select the areas of interest, and choose courses to give emphasis to these areas.

To qualify for registration in the electrical engineering courses specified in the first semester of the junior year of the curriculum in electrical engineering, a student must have a combined grade-point average of 3.25 (A=5.0) in the mathematics, physics, computer science, and electrical engineering courses which are required in the freshman and sophomore years of the curriculum.

The following suggested curriculum indicates one way in which the student may satisfy in eight semesters the requirements for the degree of Bachelor of Science in Electrical Engineering.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry	3	Chem. 102 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1	Chem. 106 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0	Math. 130 — Calculus and Analytic Geometry	5
Math. 120 — Calculus and Analytic Geometry	5	Phycs. 106 — General Physics (Mechanics)	4
Rhet. 105 — Principles of Composition	4	Humanities or social sciences elective[1]	3
Humanities or social sciences elective[1]	3	Total	16
Total	16		
SECOND YEAR			
C.S. 101 — Introduction to Automatic Digital Computing	3	E.E. 260 — Networks I	3
Math. 140 — Calculus and Analytic Geometry	3	E.E. 244 — Electrical Engineering Laboratory I	2
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	Math. 345 — Differential Equations and Orthogonal Functions	3
Electives[1]	6	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Total	16	Electives[1]	4
		Total	16
THIRD YEAR			
E.E. 229 — Introduction to Electromagnetic Fields	3	E.E. 245 — Electrical Engineering Laboratory II	2
E.E. 290 — Introduction to Information Processing	3	Electives[1]	13
E.E. 340 — Electronics I	3	Total	15
Electives[1]	6		
Total	15		
FOURTH YEAR			
Electives[1]	15	Electives[1]	15

[1] Sixty-five hours of electives are to be selected by the student, in consultation with his adviser, apportioned as follows:

- Forty-one hours of technical electives as follows:

  Twenty-six semester hours of electrical engineering courses to be selected from a departmentally approved list.

  The courses selected to meet the preceding requirement must include at least two of the following twelve laboratory courses: E.E. 246, 249, 335, 344, 346, 351, 353, 369, 379, 386, 388, 397, and at least four of the following seven courses: E.E. 266, 308, 310, 330, 342, 350, and E.E. 344 or Phycs. 383 or equivalent.

  Fifteen semester hours of technical electives to be selected from a departmentally approved list, at least 12 of which must be in areas outside electrical engineering.
- Eighteen hours of humanities and social sciences from the college-approved list. (See page 219.)
- Six semester hours of free electives, to be selected in accordance with the regulations of the college.

CURRICULUM IN ENGINEERING MECHANICS

For the degree of Bachelor of Science in Engineering Mechanics

This curriculum, offered by the Department of Theoretical and Applied Mechanics, is intended primarily for students interested in research and development in modern engineering. It links the sciences and engineering with an emphasis on the principles of mechanics which are basic to all branches of engineering. Electives give the student freedom to prepare for a variety of career opportunities in industry and in government. A firm foundation is provided for continuing self-education, which is necessary for participation in the advances of an ever-progressing technological

society. The curriculum also provides sound preparation for graduate study in many disciplines.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry	5
Rhet. 105 — Principles of Composition	4
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	3
Chem. 106 — General Chemistry Lab	1
Math. 130 — Calculus and Analytic Geometry	5
Phycs. 106 — General Physics (Mechanics)	4
Humanities or social sciences elective[1]	3
Total	16

SECOND YEAR

Math. 140 — Calculus and Analytic Geometry	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
T.A.M. 152 — Engineering Mechanics I (Statics)	3
Humanities or social sciences electives[1]	6
Total	16

C.S. 101 — Introduction to Automatic Digital Computing	3
Math. 343 — Advanced Calculus	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
T.A.M. 212 — Engineering Mechanics II (Dynamics)	3
Humanities or social sciences elective[1]	3
Total	16

THIRD YEAR

E.E. 260 — Networks I	3
Math. 345 or 341 — Differential Equations	3
T.A.M. 221 — Elementary Mechanics of Deformable Bodies	3
T.A.M. 235 — Fluid Mechanics	4
Humanities or social sciences elective[1]	3
Total	16

E.E. 308 — Transforms in Circuit and System Analysis	3
M.E. 205 — Thermodynamics	3
T.A.M. 224 — Behavior of Materials	3
Advanced dynamics elective[2]	3
Technical elective	3
Total	15

FOURTH YEAR

T.A.M. 293 — Senior Research Project	2
T.A.M. 351 — Fundamental Concepts of Deformable Body Mechanics	3
T.A.M. 392 — Analysis and Synthesis of Problems	3
Advanced mechanics elective[3]	3
Humanities or social sciences elective[1]	3
Free elective	3
Total	17

Advanced fluid mechanics elective[4]	3
T.A.M. 294 — Senior Research Project	4
Advanced mechanics elective[3]	3
Technical elective	3
Free elective	3
Total	16

[1] The list of courses approved by the College of Engineering should be consulted.

[2] The student may elect T.A.M. 311, or T.A.M. 314, or Phycs. 322, or any other 3- or 4-hour course for which T.A.M. 212 (or equivalent) is listed as a prerequisite.

[3] The student must take at least 3 hours of course work in each of two of the following three areas: Modern Physics (Phycs. 383, or Phycs. 385, or Phycs. 386, or any other course covering quantum mechanics in some detail); Continuum Mechanics (T.A.M. 360, or A.A.E. 327, or any other course for which T.A.M. 351 or its equivalent is listed as a prerequisite); and Advanced Materials (T.A.M. 381, or Met. E. 387, or Cer. E. 297, or any other course for which T.A.M. 224 or its equivalent is listed as a prerequisite).

[4] The student may elect T.A.M. 334, or T.A.M. 335, or M.E. 305, or A.A.E. 312, or C.E. 351, or any other 3- or 4-hour course for which T.A.M. 235 (or equivalent) is listed as a prerequisite.

CURRICULUM IN ENGINEERING PHYSICS

For the degree of Bachelor of Science in Engineering Physics

This curriculum provides broad, thorough training in fundamental physics and mathematics to prepare students for graduate study in physics or related fields and for research and development positions in industrial or government laboratories. For the first two years, the curriculum follows essentially the common engineering program. In the last two years, emphasis is on advanced courses in physics and mathematics, but there is a liberal allowance of electives enabling a student to study a particular field of engineering, of liberal arts and sciences, or of other areas interesting him. Physics honors students have an opportunity to join a graduate student-faculty research project.

The curriculum requires 128 hours, of which 35 hours are elective.

When registering for advanced undergraduate courses in physics, students continuing in or transferring to this curriculum must have a grade-point average of at least 3.5 (A=5.0) in all University subjects exclusive of the basic courses in military training, and a combined grade-point average of 3.5 in all courses in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they have transferred and must maintain such status at the University.

The illustrative program that follows shows how all requirements might be completed in four years. However, many students take these courses in a different order.

FIRST YEAR — FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry[1]	3	Chem. 102 — General Chemistry[1]	3
Chem. 105 — General Chemistry Lab	1	Chem. 106 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0	Humanities or social sciences electives	4
G.E. 103 — Engineering Graphics I	3	Math. 130 — Calculus and Analytic Geometry	5
Math. 120 — Calculus and Analytic Geometry	5	Phycs. 106 — General Physics (Mechanics)	4
Rhet. 105 — Principles of Composition	4		
Total	16	Total	17
SECOND YEAR			
Math. 140 — Calculus and Analytic Geometry	3	Math. 343 — Advanced Calculus	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
		Phycs. 341 — Electricity and Magnetism	5
Language[2] or humanities or social sciences electives[3]	4	Language[2] or humanities or social sciences electives[3]	4
Humanities or social sciences elective[3]	3		
C.S. 101 — Introduction to Automatic Digital Computing	3		
Total	17	Total	16
THIRD YEAR			
Math. 345 — Differential Equations and Orthogonal Functions[4]	3	Phycs. 322 — Theoretical Mechanics[6]	4
Phycs. 321 — Theoretical Mechanics	4	Phycs. 343 — Electronic Circuits[7]	5
Phycs. 342 — Electricity and Magnetism	5	Phycs. 371 — Light	4
Nontechnical electives[5]	4	Humanities or social sciences elective[3]	3
Total	16	Total	16

FOURTH YEAR

Phycs. 303 — Modern Experimental Physics,[6] or Phycs. 344 — Electronic Circuits 5
Phycs. 386 — Atomic Physics and Quantum Mechanics I 4
Technical or nontechnical elective[5] 3
Free elective 3
Total 15

Phycs. 360 — Thermodynamics 4
Phycs. 387 — Atomic Physics and Quantum Mechanics II 4
Technical or nontechnical electives[5] 4
Free elective 3
Total 15

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[1] Chem. 107, 109, and 108, 110 may be substituted for Chem. 101 and 102 by students who desire a more rigorous chemistry sequence.

[2] German, Russian, or French is recommended. If one of these was begun in high school, it should be continued through the equivalent of the fourth semester of the University course.

[3] Consult the college list of approved courses in humanities and social sciences on page 219.

[4] Math. 341 and 342 may replace Math. 345. Extra hours count as technical electives.

[5] Advanced military courses may be substituted for 6 hours of nontechnical electives.

[6] Students wishing to take the College Option in Bioengineering may substitute courses from the bioengineering option list (see pages 215 and 216) for Phycs. 322, Phycs. 303, and any 9 hours from free, technical, and nontechnical electives. The college requirements of 18 hours of humanities and social sciences electives are not waived for students electing the bioengineering option.

[7] Students wishing to emphasize electrical engineering may take E.E. 342 or other suitable electrical engineering sequence.

Elective Courses

Of the 35 hours of elective courses, 18 hours must be chosen from the college-approved list of the humanities and social sciences. (See page 219.) At least 6 additional hours must be nontechnical electives, which may include up to 6 hours of advanced military science or any first-year foreign language.

The remaining 11 hours of electives, including 6 hours of free electives, may be in technical or nontechnical courses. Technical electives are chosen from a wide variety of courses, usually in mathematics, science, or engineering. Below are listed some recommended sequences in engineering courses for the student who wishes to emphasize a particular branch of engineering. The student should consult his physics adviser and an adviser in the engineering department concerned since some rearrangement of his schedule may be necessary.

Of the 35 elective hours, at least 12 must be chosen either from technical courses numbered 300 or above or from nontechnical courses numbered 200 or above.

AERONAUTICAL AND ASTRONAUTICAL ENGINEERING **HOURS**

A.A.E. 212 — Aerodynamics I 4
A.A.E. 213 — Aerodynamics II 4
A.A.E. 224 — Flight Structures I 4
A.A.E. 254 — Aerospace Dynamic Systems I 3
A.A.E. 255 — Aerospace Dynamic Systems II 4

BIOENGINEERING OPTION (See page 215)

CERAMIC ENGINEERING

Cer. E. 205 — Phase Equilibria in Ceramic Systems 3
Cer. E. 310 — Refractory Technology 3
Cer. E. 340 — Electrical Ceramics 3

ELECTRICAL ENGINEERING

E.E. 349 — Nonlinear Electronic Circuits 3
E.E. 380 — Pulse and Digital Circuits 3
E.E. 379 — Pulse and Digital Lab. 1
E.E. 383 — Principles and Applications of Linear Integrated Circuits 3

ENGINEERING MECHANICS

T.A.M. 221 — Elementary Mechanics of Deformable Bodies 3
T.A.M. 235 — Fluid Mechanics 4
Additional recommended courses: T.A.M. 224, 326, 335, and either T.A.M. 321 or 351.

MECHANICAL ENGINEERING

M.E. 211 — Introductory Gas Dynamics and M.E. 213 — Heat Transfer 6
M.E. 302 — Nuclear Power Engineering 3
M.E. 305 — Thermodynamics of High Velocity Flow 3

METALLURGICAL ENGINEERING

Met. E. 370 — Physical Metallurgy I 3
Met. E. 371 — Physical Metallurgy Laboratory I 1
Met. E. 384 — Properties of Solids 3

NUCLEAR ENGINEERING

Nuc. E. 347 — Introduction to Nuclear Engineering 4
Nuc. E. 398 — Radiochemistry Laboratory 2
Phycs. 344 — Electronic Circuits, or Phycs. 303 — Modern Experimental Physics 5
Either Phycs. 344 or 303 is required; it is recommended that both be taken.
Phycs. 382 — Subatomic Physics 4

CURRICULUM IN GENERAL ENGINEERING

For the degree of Bachelor of Science in General Engineering

The general engineering curriculum provides a comprehensive program in the basic sciences, engineering sciences, and in project design, together with specialized training in an approved secondary field. The secondary field may be selected from the areas shown below or from any other cohesive field of study approved by the department. Other fields selected in the past include law, mathematics, bioengineering, oceanography, meteorology, technical writing, engineering design, etc. The program is centered around a strong core in mathematics, theoretical and applied mechanics, basic electronics, thermodynamics, and project design. Emphasis is placed upon the practice of professional engineering.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry[1]	5
Humanities or social sciences elective[2]	3
Total	15

SECOND SEMESTER	HOURS
G.E. 104 — Engineering Project Design Methodology	3
Math. 130 — Calculus and Analytic Geometry	5
Phycs. 106 — General Physics (Mechanics)	4
Rhet. 105 — Principles of Composition	4
Total	16

SECOND YEAR

C.S. 101 — Introduction to Automatic Digital Computing	3
Econ. 108 — Elements of Economics	3
Math. 140 — Calculus and Analytic Geometry	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
T.A.M. 150 — Analytical Mechanics (Statics)	2
Total	15

Math. 345 — Differential Equations and Orthogonal Functions	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
T.A.M. 212 — Engineering Mechanics II (Dynamics)	3
T.A.M. 221 — Elementary Mechanics of Deformable Bodies	3
Humanities or social sciences elective[2]	3
Total	16

THIRD YEAR

G.E. 221 — Introduction to General Engineering Design	3
G.E. 222 — Analysis of Dynamic Systems	3
G.E. 288 — Economic Analysis for Engineering Decision Making	3
M.E. 209 — Thermodynamics and Heat Transfer	3
Secondary field elective	3
Total	15
E.E. 244 — Electrical Engineering Laboratory I	2
E.E. 260 — Networks I	3
G.E. 232 — Engineering Analysis	4
Secondary field elective	3
Humanities or social sciences elective[2]	3
Free elective	3
Total	18

FOURTH YEAR

G.E. 241 — Component Design	4
G.E. 292 — Engineering Law	3
T.A.M. 235 — Fluid Mechanics	4
Secondary field elective	3
Humanities or social sciences elective[2]	3
Total	17
G.E. 242 — Project Design	3
G.E. 291 — General Engineering Seminar	0
Technical elective	3
Secondary field elective	3
Humanities or social sciences elective[2]	3
Free elective	3
Total	15

[1] Math. 111 or 112, and 114 for those entering freshmen who do not pass the Mathematics Placement Test. Students who have had analytic geometry in high school and pass the Mathematics Placement Test will replace the mathematics sequence 120, 130, 140 with Math. 135, 145, and 3 hours of free electives.

[2] Students must complete at least one elective sequence of at least 6 hours in both the social sciences and the humanities. (See page 219.)

Suggested Fields of Concentration

ENGINEERING ADMINISTRATION	HOURS
Accy. 201 — Fundamentals of Accounting	3
Accy. 206 — Cost Accounting for Engineers	3
B. Adm. 210 — Management and Organizational Behavior	3
B. Adm. 247 — Introduction to Management	3
B. Adm. 249 — Human Relations	3
B. Adm. 314 — Production	3
B. Adm. 315 — Management in Manufacturing	3
B. Adm. 321 — Organizational Behavior	3
B. Adm. 323 — Industrial Social System	3
B. Adm. 351 — Personnel Administration	3
Fin. 257 — Corporation Finance	3
G.E. 282 — Introduction to Patent Law	2
G.E. 330 — Industrial Standardization	2
I.E. 335 — Industrial Quality Control	3
I.E. 357 — Safety Engineering	3
Math. 263 — Statistics in Engineering and the Physical Sciences	3
B.&T.W. 251 — Business and Administrative Communication	3

ENGINEERING MARKETING	
Accy. 201 — Fundamentals of Accounting	3
B. Adm. 202 — Principles of Marketing	3
B. Adm. 272 — Industrial Selling	3
B. Adm. 320 — Marketing Research	3
B. Adm. 337 — Promotion Management	3
B. Adm. 344 — Consumer Behavior	3
B. Adm. 360 — Business Logistics	3
G.E. 282 — Introduction to Patent Law	2
G.E. 330 — Industrial Standardization	2
Math. 263 — Statistics in Engineering and the Physical Sciences	3
Psych. 245 — Industrial Psychology	3
B.&T.W. 251 — Business and Administrative Communication	3

ENVIRONMENTAL QUALITY

Anth. 369 — Introduction to Human Ecology 3-5
Anth. 374 — Problems in Human Ecology 4
Biol. 212 — Environmental Biology 5
C.E. 240 — Control of the Urban Environment 3
C.E. 241 — Water Quality and Water Pollution 3
C.E. 340 — Physical Principles of Environmental Engineering Processes 3
C.E. 341 — Air Resources Management 2
C.E. 342 — Water Quality Control Processes 3
C.E. 343 — Chemical Principles of Environmental Engineering Processes 3-4
C.E. 344 — Solid Wastes Management 4
C.E. 345 — Environmental Health Engineering 3
C.E. 346 — Biological Principles of Environmental Engineering Processes 3
C.E. 347 — Aquatic Ecology 3
G.E. 348 — Air Pollution Seminar 2
G.E. 360 — Engineering Applications of Meteorological Fundamentals 4

COMPUTER SCIENCE

Any computer science course beyond C.S. 101.
G.E. 293 — Section C, Computer Graphics in Engineering 3

MINING AND GEOLOGICAL ENGINEERING

C.E. 201 — Engineering Surveying[1] 4
C.E. 280 — Introduction to Soil Mechanics and Foundation Engineering[1] 3
C.E. 383 — Soil Mechanics and Soil Properties 4
C.E. 384 — Applied Soil Mechanics 4
C.E. 385 — Terrain Analysis 4
G.E. 293 — Special Problems (Mine Ventilation)[1] 3
G.E. 393 — Special Problems[1] 3
Geol. 107 — General Geology I[1] 4
Geol. 108 — General Geology II[1] 4
Geol. 250 — Geology for Engineers 3
Geol. 311 — Structural Geology[1] 4
Geol. 332 — Mineralogy-Petrology 4
Math. 263 — Statistics in Engineering and the Physical Sciences 3
Math. 343 — Advanced Calculus 3
Met. E. 207 — Extractive Metallurgy[1] 3
Min. E. 356 — Rock Mechanics[1] 3
Any mining engineering course 1-4

[1] These courses are required in the mining engineering option. Twelve of these hours will count as the secondary field and the remainder will be substituted for other courses with the approval of the adviser.

CURRICULUM IN INDUSTRIAL ENGINEERING

For the degree of Bachelor of Science in Industrial Engineering

Industrial engineering is concerned with the design, improvement, and installation of integrated systems of men, materials, and equipment, drawing upon specialized knowledge and skill in the mathematical, physical, and social sciences together with the principles and methods of engineering analysis and design, to specify, predict, and evaluate the results to be obtained from such systems. Industrial engineers are in demand by a wide variety of industries ranging from metalworking through electrical, chemical, pharmaceutical, and food processing.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry	5
Rhet. 105 — Principles of Composition	4
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	3
Chem. 106 — General Chemistry Lab	1
Humanities or social sciences elective[1]	3
Math. 131 — Calculus and Analytic Geometry	3
Phycs. 106 — General Physics (Mechanics)	4
Total	14

SECOND YEAR

Math. 141 — Calculus and Analytic Geometry	5
M.E. 185 — Materials Processing and Production Technology	4
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
T.A.M. 154 — Analytical Mechanics (Statics and Dynamics)	4
Total	17

C.S. 101 — Introduction to Automatic Digital Computing	3
Math. 345 — Differential Equations and Orthogonal Functions	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
T.A.M. 221 — Elementary Mechanics of Deformable Bodies	3
Humanities or social sciences elective[1]	3
Total	16

THIRD YEAR

I.E. 232 — Methods-Time Analysis	3
I.E. 238 — Analysis of Data	3
M.E. 209 — Thermodynamics and Heat Transfer	3
M.E. 220 — Mechanics of Machinery	4
Humanities or social sciences elective[1]	3
Total	16

Accy. 201 — Fundamentals of Accounting	3
I.E. 286 — Operations Analysis	3
E.E. 220 — Basic Electrical Engineering	3
M.E. 224 — Design of Machine Elements	3
M.E. 234 — Heat Treatment of Metals	3
Humanities or social sciences elective[1]	3
Total	18

FOURTH YEAR

I.E. 282 — Process Planning and Economy in Manufacturing	3
I.E. 288 — Industrial Systems Analysis and Design	3
I.E. 291 — Seminar	0
I.E. 357 — Safety Engineering	3
I.E. 386 — Industrial Engineering Analysis	3
Technical elective[2]	3
Humanities or social sciences elective[1]	3
Total	18

Technical elective	6
Humanities or social sciences elective[1]	3
Free electives	6
Total	15

[1] A total of 18 hours of humanities and social sciences electives is required, one course of which must be economics. The remaining hours are to be selected from the college-approved list on page 219.

[2] Nine hours of technical electives from a departmentally approved list are required. A limit of 6 hours of these is set for undergraduate individual instruction courses.

CURRICULUM IN MECHANICAL ENGINEERING

For the degree of Bachelor of Science in Mechanical Engineering

Mechanical engineering is concerned with the theory of conversion and transmission of energy and the practical use of power processes; the kinematic, dynamic, and strength and wear considerations as well as the technological and economic aspects in the development, design, and use of machines and processes; the analysis, syn-

thesis, and control of entire engineering systems; and the organizational and management problems confronting the mechanical engineer.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry	3	Chem. 102 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1	Chem. 106 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0	Humanities or social sciences elective[1]	3
G.E. 103 — Engineering Graphics I	3	Math. 131 — Calculus and Analytic Geometry	3
Math. 120 — Calculus and Analytic Geometry	5	Phycs. 106 — General Physics (Mechanics)	4
Rhet. 105 — Principles of Composition	4		
Total	16	Total	14
SECOND YEAR			
Math. 141 — Calculus and Analytic Geometry	5	C.S. 101 — Introduction to Automatic Digital Computing	3
M.E. 185 — Materials Processing and Production Technology	4	Math. 345 — Differential Equations and Orthogonal Functions	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	M.E. 220 — Mechanics of Machinery	4
T.A.M. 154 — Analytical Mechanics	4	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
		Humanities or social sciences elective[1]	3
Total	17	Total	17
THIRD YEAR			
E.E. 220 — Basic Electrical Engineering	3	M.E. 206 — Thermodynamics	3
M.E. 205 — Thermodynamics	3	M.E. 213 — Heat Transfer	3
M.E. 210 — Introduction to Engineering Experimentation	3	M.E. 224 — Design of Machine Elements	3
M.E. 211 — Introductory Gas Dynamics	3	M.E. 234 — Heat Treatment of Metals	3
T.A.M. 221 — Elementary Mechanics of Deformable Bodies	3	Technical elective[2] or humanities or social sciences elective[1]	3
Humanities or social sciences elective[1]	3		
Total	18	Total	15
FOURTH YEAR			
Mechanical engineering systems[3]	3	Free electives	6
M.E. 250 — Thermoscience Laboratory	3	Humanities or social sciences electives[1]	3-6
M.E. 265 — Instrumentation and Controls	3	Technical electives[2]	3-6
M.E. 271 — Design of Machine Elements	3	Total	15
M.E. 291 — Seminar	0		
Technical electives[2]	3		
Humanities or social sciences elective[1]	3		
Total	18		

[1] A total of 18 hours of humanities and social sciences electives is required, one course of which must be economics. (See page 219.)

[2] Nine hours of technical electives are required and must be chosen from a departmentally approved list.

[3] Mechanical engineering systems to be chosen from M.E. 323, 335, 341; I.E. 282; and other courses approved by the department.

CURRICULUM IN METALLURGICAL ENGINEERING

For the degree of Bachelor of Science in Metallurgical Engineering

The program in metallurgical engineering emphasizes physical metallurgy and permits the student, by appropriate selection of elective courses, to emphasize engineering metallurgy, metal physics, or some other well-defined career objective. The basic core of physical metallurgy principles is treated in the sequence Met. E. 370-

373, and this may be taken by students from other curricula who wish to obtain a strong foundation in the basic principles of physical metallurgy.

FIRST YEAR — FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	3
Chem. 105 — General Chemistry Lab	1
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry	5
Rhet. 105 — Principles of Composition	4
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	3
Chem. 106 — General Chemistry Lab	1
Math. 131 — Calculus and Analytic Geometry	3
Phycs. 106 — General Physics (Mechanics)	4
Humanities or social sciences electives[1]	4
Total	15

SECOND YEAR

Math. 141 — Calculus and Analytic Geometry	5
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
T.A.M. 154 — Analytical Mechanics (Statics and Dynamics)	4
Elective[1]	3
Total	16

Math. 345 — Differential Equations and Orthogonal Functions	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
T.A.M. 221 — Elementary Mechanics of Deformable Bodies	3
C.S. 101 — Introduction to Automatic Digital Computing	3
Elective[1]	3
Total	16

THIRD YEAR

Met. E. 370 — Physical Metallurgy I	3
Met. E. 371 — Physical Metallurgy Laboratory I	3
Met. E. 310 — Crystallography and Diffraction	4
Met. E. 314 — Metallurgical Thermodynamics	3
Elective[1]	3
Total	16

Met. E. 372 — Physical Metallurgy II	3
Met. E. 373 — Physical Metallurgy Laboratory II	3
Met. E. 316 — Mechanical Metallurgy	3
Electives[1]	7
Total	16

FOURTH YEAR

E.E. 220 — Basic Electrical Engineering	3
Met. E. 296 — Metallurgical Seminar	2
Electives[1]	12
Total	17

Met. E. 318 — Physics of Metals	3
Electives[1]	13
Total	16

[1] All students are required to satisfy the college requirement of 18 hours in the social sciences and humanities. (See page 219.) Six hours of electives are free to be selected by the student. A minimum of 9 hours is to be selected from among these departmental electives: Met. E. 207, 301, 302, 304, 306, 307, 315, and 386. A minimum of six hours of technical electives are to be taken outside the department. A liberal interpretation of *technical elective* will be taken, and may include such courses that satisfy a carefully thought out career plan presented by the student to his adviser.

CURRICULUM IN MINING ENGINEERING

See General Engineering, on page 236, for undergraduate curriculum.

CURRICULUM IN THE TEACHING OF ENGINEERING TECHNOLOGY

For the degree of Bachelor of Science in the Teaching of Engineering Technology

The basic purposes of this curriculum are threefold: to provide course material for subject-matter competence; to furnish the necessary background in pedagogical

theory and techniques, including practice teaching; and to make possible on-the-job experience through relevant work and study under supervision in industry. Upon completion of the program the graduate qualifies for a teaching certificate issued by the Illinois Teacher Certification Board.

For teacher education requirements applicable to all curricula, see pages 116 to 119.

GENERAL EDUCATION REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and a speech communication performance elective, or Rhet. 108 and a speech communication performance elective	6-7
Natural sciences (chemistry and physics)	16
History of the United States	3
American government (state and federal constitutions)	3
General psychology	3
Physical and/or health education	3
Humanities	3
Social sciences	6
Total	43-44

PROFESSIONAL EDUCATION REQUIREMENTS	
Orientation to professional education	2
Principles of education	3
Psychology of teaching and learning	3
Foundations of American education (educational policy studies)	3
Techniques of teaching	3
Educational practice (student teaching)	5
Total	19

REQUIREMENTS OF THE TEACHING MAJOR	
Mechanical Option	
Mathematics	18
Computer science	3
Theoretical and applied mechanics	8
Material processing and treatment	11
Machine design	14
Engineering graphics	6
Electrical systems	5
Control systems	3
Industrial practice (supervised occupational experience)	6
Elective	3
Total	77
Electronics Option	
Mathematics	21
Computer science	3
Theoretical and applied mechanics	7
Engineering graphics	6
Electrical circuits	13
Electronics	9
Industrial practice (supervised occupational experience)	6
Electives	12
Total	77
TOTAL	138-139

CURRICULUM IN ENGINEERING TECHNOLOGY

For the postbaccalaureate Certificate in Teaching of Engineering Technology

This program provides the opportunity to obtain a postbaccalaureate certificate after the completion of 32 semester hours of subject matter courses appropriate for teachers active in the profession with degrees in other disciplines. Candidates who

have the necessary entrance requirements can normally complete this program in four eight-week summer sessions.

REQUIREMENTS OF THE PROGRAM

	HOURS
Mechanical Option	
Related special problems	4
Theoretical and applied mechanics	5
Material processing and treatment	7
Machine design	13
Principles of vocational education	3
Total	32
Electronics Option	
Related special problems	3
Electrical circuits	13
Electronics	13
Principles of vocational education	3
Total	32

MECHANICAL OPTION

FIRST SUMMER	HOURS
T.A.M. 150 — Analytical Mechanics (Statics)	2
G.E. 393 — Special Problems	4
Vo. Tech. 284 — Advanced Metalworking	4
Total	10

SECOND SUMMER	HOURS
M.E. 220 — Mechanics of Machinery	4
T.A.M. 221 — Elementary Mechanics of Deformable Bodies	3
Total	7

THIRD SUMMER	
M.E. 224 — Design of Machine Elements	3
M.E. 234 — Heat Treatment of Metals	3
Vo. Tech. 381 — Principles of Vocational Education	3
Total	9

FOURTH SUMMER	
M.E. 271 — Design of Machine Elements	3
M.E. 341 — Engineering Analysis and Design	3
Total	6

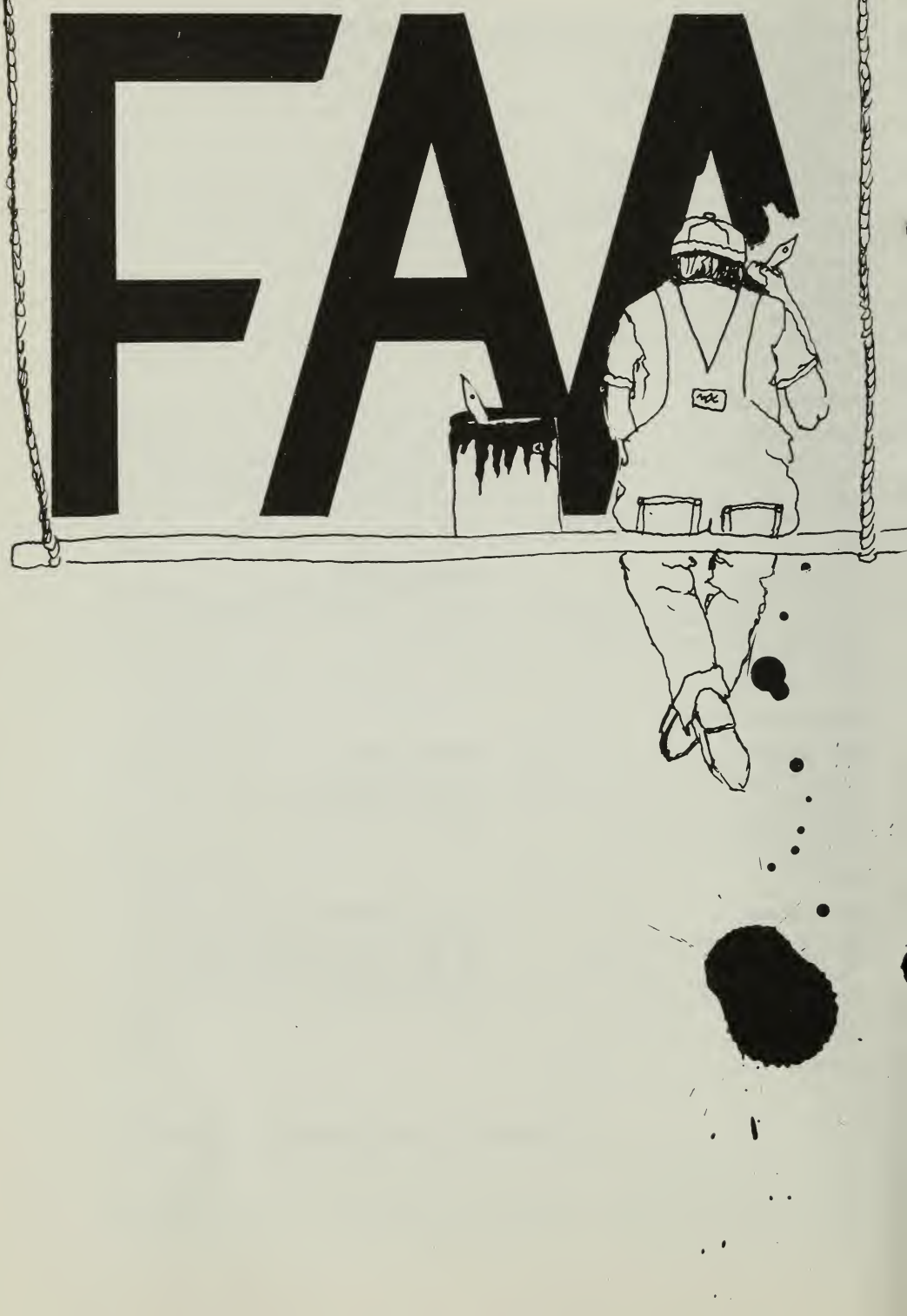
ELECTRONICS OPTION

FIRST SUMMER	HOURS
E.E. 244 — Electrical Engineering Laboratory	2
E.E. 260 — Networks I	3
E.E. 271 — Electrical Engineering Problems	3
Total	8

SECOND SUMMER	HOURS
E.E. 262 — Networks II	3
E.E. 310 — Systems I	3
E.E. 340 — Electronics	3
Total	9

THIRD SUMMER	
E.E. 342 — Advanced Electronics	3
E.E. 290 — Introduction to Information Processing	3
E.E. 245 — Electrical Engineering Laboratory II	2
Total	8

FOURTH SUMMER	
E.E. 379 — Pulse and Digital Lab	1
E.E. 380 — Pulse and Digital Circuits	3
Vo. Tech. 381 — Principles of Vocational Education	3
Total	7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Peter Crockett, Aurora, Illinois

COLLEGE OF FINE AND APPLIED ARTS

University of Illinois at Urbana-Champaign
114 Architecture Building
Urbana, IL 61801

The College of Fine and Applied Arts prepares men and women for professional work by offering programs in architecture, art and design, dance, landscape architecture, music, theatre, and urban and regional planning. Both freshmen and transfer students are admitted to these curricula. In each curriculum certain basic courses, professional courses, and general education requirements including a minimum approved sequence of 6 semester hours each in the humanities, social sciences, and natural sciences. must be completed in order to qualify for the specific baccalaureate degree offered.

For development beyond the undergraduate programs in these areas of study the departments of the college offer graduate curricula leading to advanced professional degrees through the Graduate College.

For students enrolled in other colleges and schools of the University of Illinois at Urbana-Champaign, the College of Fine and Applied Arts offers introductory courses designed to increase aesthetic appreciation and development and to portray the role of the arts in civilization. Participation in University Bands is available, and applied music courses are also available.

To serve the total academic community and all citizens in the state of Illinois, the college features the arts by exhibitions, concerts, lectures, performances, demonstrations, and conferences within the areas of architecture, art, dance, landscape architecture, music, theatre, and urban and regional planning. Many outstanding professionals and works in these fields are brought to the University campus.

In addition to the teaching divisions, the College of Fine and Applied Arts includes the Krannert Center for the Performing Arts, the Krannert Art Museum, the University Bands, the Bureau of Urban and Regional Planning Research, and the Small Homes Council–Building Research Council.

KRANNERT ART MUSEUM

The museum exhibits works from its own extensive collections, which date from ancient Egypt to our own times, and in addition, schedules a full program of changing exhibitions. These bring a wide variety of historic and contemporary works here and provide staff and students the opportunity to see their own productions in museum installations.

KRANNERT CENTER FOR THE PERFORMING ARTS

The center, completed in 1969, provides remarkable facilities for orchestra, opera, choral organization, theatre, and dance. The Great Hall, seating 2,200, is designed for large-scale musical events. The Festival Theatre, with 1,000 seats, is for opera and other musical stage productions. The Playhouse seats 700 and is the home of the University Theatre. The Studio Theatre, seating 250, is for experimental productions. An outdoor amphitheatre, rehearsal rooms, offices, dressing rooms, technical rooms, and underground parking on two levels for 650 cars complete this monumental facility. The major donors of the center were Mr. and Mrs. Herman C. Krannert of Indianapolis.

UNIVERSITY OF ILLINOIS BANDS

The University Bands are organized into the Large Symphonic Band, the Small Symphonic Band, the First Concert Band, and the Second Concert Band. Membership in these organizations is determined by audition and assignments are made according to proficiency and instrumentation needs. Members of the Large Symphonic Band in their third and succeeding year are eligible for scholarships amounting to approximately $100 per year.

The bands play numerous concerts on the campus, and the Large Symphonic Band also appears in many Illinois and other midwestern cities. In addition, the bands furnish music for commencement, convocations, athletic events, military ceremonies, and other occasions.

The University owns a large library of band music and was bequeathed the John Philip Sousa Memorial Library. These collections comprise one of the largest and finest libraries of band music in the world.

The Large Symphonic Band maintains a complete symphonic instrumentation for the study and performance of all types of band literature and is open to those who have attained a high level of musical and technical proficiency on their instruments. The Small Symphonic Band maintains a complete but slightly smaller instrumentation than the Large Symphonic Band. The First Concert Band maintains the instrumentation of the standard band and serves as a training organization for the symphonic bands. The Second Concert Band enrolls those who at first do not qualify for positions in the other bands, until they become eligible for promotion as improvement is shown and vacancies occur. Promotions to the Symphonic Bands may be made directly from any of the three Concert Bands.

One hour of credit per semester is offered in bands. This credit may be used as partial fulfillment of the School of Music ensemble requirement and is available to other colleges as elective credit.

LIBRARIES

Students in the college have at their disposal outstanding library resources. In addition to the general Library, one of this country's great university collections, there are specialized libraries serving the needs of specific fields. The Ricker Library of

Architecture and Art contains more than 33,000 books (with as many more in the same fields in the Main Library), 32,000 photographs, and 9,400 clippings.

The City Planning and Landscape Architecture Library contains approximately 18,000 books, with at least that many in the general Library.

The School of Music Library, located in the Music Building, contains over 250,000 items. These include introductory, instructive, research, and reference materials including books, editions of music, recordings, manuscripts, microfilm, and other nonbook materials.

DEPARTMENTS AND CURRICULA

The College of Fine and Applied Arts consists of the Departments of Architecture, Art and Design, Dance, Landscape Architecture, Theatre, and Urban and Regional Planning with the Bureau of Urban and Regional Planning Research; the School of Music; the University Bands; the Small Homes Council–Building Research Council; the Krannert Art Museum; and the Krannert Center for the Performing Arts. The specific functions of each department or school and the undergraduate curricula are described on the following pages.

All departments in the College of Fine and Applied Arts reserve the right to retain, exhibit, and reproduce the works submitted by students for credit in any course.

SPECIAL PROGRAMS

Individual Study Program

All curricula offered by the College of Fine and Applied Arts are designed to develop professional competence in the specific area of studies noted on the degree. Therefore, an individual study program must insure this professional development.

A qualified student who has specific professional goals which are not met by the curricular offerings of the college may request an individual program of studies selected from courses offered by the University. Such a program must include the basic courses prerequisite for advanced study, requirements of the University for graduation, general education sequences and requirements of the college, and professional course work which will insure the competence expected for the particular degree.

To obtain approval for an individual study program, the student must submit his proposal in writing during his sophomore or junior year. The proposal should contain an outline of the complete program of course work as well as an explanation of the professional goal desired. It should be discussed with and submitted to an approved representative of the appropriate department or school concerned with the degree who will then forward the proposal through the executive officer of the department or school for recommendation to the college office. Final consideration and notification of the action taken on the proposal will be made by the college office.

Study Abroad

The college provides the opportunity for a student to obtain campus credit for foreign study and/or travel for a period of from one semester to one calendar year. The student must submit a detailed proposal of plans for such study and/or travel for approval by his appropriate departmental committee and by the associate dean of the college prior to such study abroad. If approved, the student registers and retains his status as a University student and may continue his student health insurance as if he continued to study at the Urbana-Champaign campus.

HONORS PROGRAMS

Honors at Graduation

At graduation, the College of Fine and Applied Arts grants honors to superior students. To be eligible, students must have completed a minimum of four semesters of work or 65 hours of credit in residence at the Urbana-Champaign campus.

For the degree with Honors, the student must have a grade-point average of 4.25 (A=5.0) or better in all courses used for graduation and be in the upper 25 percent of those receiving that particular degree; for the degree with High Honors, a grade-point average of 4.5 or better and be in the upper 15 percent; and for the degree with Highest Honors, a grade-point average of 4.75 or better and be in the upper 6 percent. Credit earned at other institutions and transferred to the University of Illinois is used in computing the student's average. Credit earned at the University of Illinois at Urbana-Champaign must be of at least the level required for the degree with Honors.

Awards

Allerton American Traveling Scholarship. Income from an endowment by the late Robert Allerton provides funds for the Department of Architecture to award two scholarships of $500 each to be used for summer travel and study on the Atlantic seaboard by two juniors in the history of architecture. The awards are made to those whose accomplishments indicate superior ability in this area.

Alpha Rho Chi Medal. Alpha Rho Chi, national architectural fraternity, provides a bronze medal each year to the Department of Architecture to be awarded to a senior who has shown ability for leadership and given promise of professional merit.

Alschuler Award. This award is presented annually to the student in the Department of Architecture who is judged to have contributed the best article to the department publication, *Objective,* during the year.

American Institute of Architects Prizes. The American Institute of Architects awards annually a medal and a certificate to the senior in architecture who is adjudged outstanding in scholastic achievement, character, and promise of professional ability, and a certificate to the senior in architecture who is ranked second in these categories.

American Society of Landscape Architects Certificates. Certificates of merit and a certificate of honor are awarded each year to one or two seniors and to a graduate student in landscape architecture. Awards are based on academic scholarship and professional skills.

Bradley and Bradley Award. An award of $100, offered each semester by the architectural firm of Bradley and Bradley, Rockford, Illinois, is made to a student who has demonstrated exceptional ability in a stated course.

Edward C. Earl Prizes. Income from an endowment bequeathed by Edward C. Earl is used for undergraduate prizes in various levels of architectural design and architectural theory, freehand drawing, structural theory and design, working drawings, and for a special prize for summer experience.

Fields, Goldman, and Magee Scholarship. An annual award of $300 is presented to an undergraduate student in architecture who has excelled in design, has completed his fourth year, and has attained general academic excellence.

Gargoyle Awards. The Gargoyle Society annually recognizes two freshmen in architecture who rank highest scholastically. Names of these students are permanently inscribed on the Gargoyle plaque.

Kate Neal Kinley Memorial Fellowship. This fellowship was established in memory

of the wife of a former president of the University and was designed to promote advanced study in the fine arts in recognition of her influence in promoting these and similar interests. It is awarded annually to enable a graduate of the University, or some similar institution of equal educational standing, to pursue advanced study for one year at home or abroad. This fellowship is open to students whose principal or major studies have been in architecture (design or history only), art (all branches), or music (all branches).

Karl Baptiste Lohmann Award. Presented annually to a graduating senior in urban and regional planning in recognition of performance as a student and of professional promise. The award is named for Karl B. Lohmann, professor of city and regional planning, emeritus, who provided the leadership in professional education in city planning at the University of Illinois for more than thirty years. A certificate is given to the recipient.

Kivett and Myers Traveling Fellowship. This award of $1,000 is offered annually by the architectural firm of Kivett and Myers, Kansas City, Missouri, to enable an undergraduate student to participate in the overseas study program of the Department of Architecture.

Frank S. and Jennie M. Long Traveling Scholarship. Income from a bequest provides $600 each for two traveling scholarships for summer travel and study. The scholarships are awarded on the basis of ability, character, and professional promise to architecture students who will return for at least one semester following receipt of the award and prior to graduation.

Mary C. McLellan Scholarship. Established by request of Mary C. McLellan of the class of 1888, this scholarship is awarded every second year under the direction of the Department of Art and Design. It is open to graduates of the University of Illinois who have demonstrated unusual excellence in one of the areas of study offered by the Department of Art and Design and who have shown promise of professional success. The stipend is to be used for professional development through travel in America or abroad, or for study at a recognized institution or with a qualified private master.

Mu Phi Epsilon Alumnae Award (Edith Rose Memorial Scholarship). An annual award of $125 is given to the senior member of Epsilon Xi chapter who has made the greatest contribution in service and scholarship in music. If there is no qualified senior, a junior may be chosen.

Ralph E. Myers Award. This award of $1,000 is offered annually by the architectural firm of Kivett and Myers, Kansas City, Missouri, to enable an undergraduate student to participate in the overseas study program of the Department of Architecture.

Rexford Newcomb Award was established in memory of Dean Newcomb, eminent architectural historian and author, and first dean of the College of Fine and Applied Arts (1931-54). The award of $100 is annual and is made to that undergraduate or graduate student whose work in the history and preservation of architecture shows highest promise of continuing the scholarly ideals and objectives of Dean Newcomb.

Pi Kappa Lambda Award. The initiation fees of Pi Kappa Lambda, national honorary music fraternity, are awarded annually by Zeta chapter to the senior student in music who has the highest scholastic average.

Plym Fellowships. An annual fellowship of $5,000 is awarded for six months' study abroad. A second fellowship is given for graduate study in architecture with a stipend of $3,000.

Plym Prizes. Through endowments of Francis J. Plym, the Department of Architecture offers annually certain prizes for undergraduate work. The prizes in

architectural engineering represent three awards to those senior architectural engineers whose work, attitude, and ability are judged the highest. The prize for summer sketches is awarded to the student who, during the summer vacation, makes the most interesting and best freehand sketches. The prize for sketch problems is offered to stimulate better development of sketch problems during the year.

Ricker Prizes. Gold keys are awarded annually for the two best essays on some phase of the history of architecture by students registered in the second year of work in this subject. The prizes are given by Anthemios chapter of Alpha Rho Chi in recognition of the distinguished contributions made by Dr. Nathan Clifford Ricker, who for fifty years taught the history of architecture at the University.

Edward L. Ryerson Traveling Fellowship. One fellowship open to senior architecture students and one fellowship in landscape architecture open to senior and graduate students are offered each year. Each fellowship grants a stipend of $3,500 to be used for a period of approved study abroad of not less than six months' duration.

Scarab Medals. Scarab architectural fraternity offers bronze medals annually for distinguished achievement in the lower junior and upper junior courses in architectural design and the junior course in site planning and housing.

Sigma Alpha Iota Award. The Urbana-Champaign alumni chapter of Sigma Alpha Iota, national honorary music sorority, provides an annual award of $100 given on the basis of musicianship, scholarship, and financial need. All undergraduate students in the School of Music who have completed at least two semesters of work are eligible to apply. The final selection is based upon auditions held once each year.

James M. White Memorial Prizes. Income from the James M. White Memorial Fund is used for prizes in the undergraduate courses in materials and methods of construction, structural elements and theory, and for excellence in graduate studies.

GRADUATION REQUIREMENTS

Students who meet the general University requirements with reference to registration, residence, scholarship, fees, rhetoric, and general education requirements, and who maintain a satisfactory record, receive degrees appropriate to the curriculum completed. Refer to the specific departmental and curricular requirements listed on the following pages. In addition, students must complete the required senior courses in their major field of study in residence at the Urbana-Champaign campus.

GENERAL EDUCATION SEQUENCE REQUIREMENTS

To comply with the general education sequence requirements, each student in the College of Fine and Applied Arts must have a minimum of 6 semester hours in one department or in an approved sequence from different departments in each of the following three areas: humanities, social sciences, and natural sciences (biological or physical sciences). They should be taken to fulfill *electives* if they are not listed as a specific curricular requirement. The following regulations apply:

- A student may not use courses in his major area to satisfy a sequence requirement and a student may not ordinarily use courses from one department to satisfy the distributional sequence requirement in more than one area.
- Basic foreign language courses, rhetoric and speech requirements, or courses numbered 199 may not be used to fulfill the sequence requirements.
- Approval to use any course or sequence not contained in the listings must be requested by written petition to the office of the associate dean of the college

prior to registration in the substitute course or courses. Approval of an adviser or instructor is not acceptable.

HUMANITIES (6 semester hours)

Anth. 168, 169, 300, 315, 316, 329.
Arch. 211, 212, and all advanced architecture history courses. (Not for architecture, art, landscape architecture, or urban and regional planning majors.)
Art 111, 112, 115, 116, 210, 211, 212, 213, 217, 218, and all advanced art history courses. (Not for architecture, art, landscape architecture, or urban and regional planning majors.)
Asian studies — all courses, except introductory and intermediate language courses.
Classics — all courses, excluding Cl. Civ. 100; Grk. 101-112, 200-202; Lat. 101-114; Hebr. 110, 111.
Comparative literature — all courses.
Dance 340, 341. (Not for dance majors.)
English — all courses, excluding rhetoric, business and technical writing, and English as a second language courses.
French — all courses, excluding 100-174, 211, 212, 213, 214, 215, 217, 218, 270, 282, 311, 313, 314.
German — all courses, excluding 101-124, 153, 164, 211, 212, 281, 303, 304, 382.
Scandinavian — all courses, excluding 101-104, 216.
Hist. 111, 112, 131, 132, 151, 152, 181, 182, 247, 248, 307, 308, 323, 324, 381, 382, 383, 384.
Humanities — all courses.
L.A. 213, 214. (Not for architecture or landscape architecture majors.)
Ling. 198, 220, 300-305, 320, 330, 338, 340, 360, 387.
Arab. 305, 306, 307, 308.
Hindi 308, 309, 310.
Hebr. 307, 308.
Music 113, 115, 130, 131, 134, 213, 214, 310, 311, 312, 313, 314, 315, 317. (Not for music majors.)
Philosophy — all courses, except those listed in physical and social science areas.
Religious studies — all courses, excluding 108, 109, 111, 112, 200, and those listed in social science area.
Slav. 319, 380, 394.
Russian — all courses, except 101-112, 121-124, 211, 212, 213, 214, 280, 303, 304, 307, 308, 313, 314.
Spanish — all courses, except 101-104, 107, 108, 111, 114, 115, 123, 124, 209, 211, 215, 217, 218, 280, 351, 352, 371.
Italian — all courses, except 101-104, 209, 211, 212.
Portuguese — all courses, except 101-104, 111, 112, 209, 211, 212.
Sp. Com. 141, 142, 177, 178, 207, 213, 223, 243, 253, 307, 308, 320, 322, 342, 344, 345, 350.
Theat. 101, 102, 103, 104, 105, 263. (Not for theatre majors.)

SOCIAL SCIENCES (6 semester hours)

Afr. St. 222, with a social science course on Africa totaling 6 hours.
Anthropology — all courses, except those listed in biological and humanities areas.
Economics — all courses.
Fin. 150, with Econ. 108.
Geography — all courses except those listed in biological and physical sciences areas.
Hist. 111, 112, 131, 132, 151, 152, 171, 172, 260, 261, 262, 307, 308, 381, 382, 383, 384.
L.A. St. — 201, with a social science course on Latin America totaling 6 hours.
Ling. 200, 201, 225, 307, 325, 350, 370.
Phil. 103, 104.
Political science — all courses.
Pol. S. 150 plus Hist. 151 or 152 or 261 or 262.
Psychology — all courses, except those listed in biological science area.
Rel. St. 229, 304, 328, 363.
Sociology — all courses, excluding that listed in biological sciences area.
Sp. Com. — 113, 221, 230, 313, 321, 335.

NATURAL SCIENCES (6 semester hours)

Biological Sciences

Life sciences — any 6 hours, may be from more than one department.
- Biology — all courses; 100, 101, 115 recommended.
- Botany — all courses; 100, 204, 234, 260 recommended.
- Entomology — all courses; 103, 118 recommended.
- Microbiology — all courses; 113 recommended.
- Physiology — all courses; 103 recommended.
- Zoology — all courses; 104, 105, 106, 107 recommended.

Anth. 143, 240, 246, 247, 337, 340, 341, 342, 343, 344, 345, 346, 347, 356, 393, 396.
Geog. 305, with a course in the life sciences totaling 6 hours or more.
Psych. 103, 143, 211, 217, 230, 246, 247, 337, 342, 347, 393.
Soc. 246, with a course in the life sciences totaling 6 hours or more.

Physical Sciences

Astronomy — all courses.
Biochemistry — all courses.
Chemical engineering — all courses.
Chemistry — all courses.
Geography — only 102, 103, 214, 303, 312, 313, 348.
Geology — all courses.
L.A.S. 140, 141, 142, 143, 197, 198.
Mathematics — all courses excluding 101, 104, 111, 112, 202, 203, 305, 306, 307. (Cannot duplicate high school entrance or curricular requirements or prerequisites.)
Phil. 333, 334, 353, 354, 355.
Physics — all courses.

ELECTIVES

Electives specified in any curriculum in the College of Fine and Applied Arts must be chosen from the lists which follow. Single courses specified in the general education sequence lists or more advanced courses for which they are prerequisites may also be used as electives. Always check prerequisite requirements when registering for these courses.

ELECTIVE AREAS

Anthropology
Architecture, especially Arch. 211, 212, 310-317 (no courses usable for architecture majors as electives; 211-212 not for art majors)
Art, especially Art 105-112, 115, 116, 181, 186, 209-216, 301-328, 388 (no courses usable for art majors as electives, only 209 and up on this list for architecture majors)
Asian studies
Astronomy
Bands, up to 2 hours (not for music majors)
Chemistry
Classics
Comparative literature
Computer science
Dance, especially Dance 101, 102, 160, 161, 165, 166, 340 (not for dance majors)
Economics
English
French
Geography
Geology
Germanic languages and literature
History
Humanities
Labor and industrial relations
Landscape architecture, especially L.A. 213 and 214 (not for landscape architecture or architecture majors)
Latin American studies
Liberal arts and sciences
Life sciences
Linguistics
Mathematics (cannot duplicate high school entrance or curricular requirements or prerequisites)
Music, especially 100-104; 113; 130; 131; instrumental courses, two courses maximum (not for music majors). For music majors no more than 6 semester hours of ensemble course work will apply toward the degree
Philosophy
Physics
Political science
P.E. activity courses (100-238, excluding 199), maximum of 3 hours
Psychology

Religious studies
Slavic languages and literature
Social sciences
Sociology
Spanish, Italian, and Portuguese
Speech communication
Theatre, especially Theat. 101, 102, 103, 104, 105, 281, 352, 361, 362, 366, 380 (not for theatre majors)
Urban and regional planning, especially U.P. 171 (not for urban planning or architecture majors)

SPECIFIC ELECTIVE COURSES

The following list of courses available as electives offers specialized areas of knowledge not found in previous lists. These courses have obvious professional values to many in fine and applied arts; other courses may simply be personally informative or significant. No more than 9 hours of courses in any one of these areas should be taken.

Accy. 101, 105, 201, 203
Ag. Ec. 100
Agron. 101, 121, 350
B. Adm. 202, 210, 247, 249, 261, 272, 323, 337, 344
C.E. 216, 230, 231, 314
Comm. 220, 251
E.E. 114, 271, 272, 288
G.E. 200- and 300-level
Fin. 150
H. Ed. 150, 200, 206
H.P. Ed. 300, 305
B. Adm. 261
Journ. 215, 220, 251, 310
Mechanical and industrial engineering, all courses
R. TV 356
Religion (maximum of 6 hours)
Air force aerospace studies, military science, and naval science, advanced courses only (maximum of 6 hours)

PROFESSIONAL ELECTIVES

Professional electives, as specified in any curriculum are courses offered by the student's department; or technical or related courses which will aid in the development of a student's professional goal and which are approved by the student's department.

Department of Architecture

Architecture is concerned with the shaping of man's habitat — that environment in which he normally lives.

In accomplishing this an architect has the responsibility to direct his professional effort in such a way as to contribute to the optimal physical, psychological, and social well-being of man. The education of an architect must stimulate sensitivity and understanding of human needs and must develop the ability to satisfy those needs through appropriate architecture. It must provide training in the process of information gathering and analysis, and in the appropriate utilization of this information in problem solving. Additionally, his education must supply him with a realization of the significance of the historical development of architecture and a thorough understanding of architectural design, structural design, environmental technology, building construction techniques, and architectural administration.

SIX-YEAR PROGRAM FOR PROFESSIONAL DEGREE

The Department of Architecture offers a six-year program of education, consisting of a four-year undergraduate curriculum leading to the degree of Bachelor of Science in Architectural Studies; and a two-year graduate curriculum leading to the professional degree of Master of Architecture. The undergraduate curriculum provides the fundamentals of a professional education, the base upon which advanced professional education can build, and, further, an acquisition of knowledge appropriate to many roles in architecture, planning, and the construction industry. The

graduate curriculum provides that advanced professional education, and, in addition, the opportunity for some specialization. The University recommends attainment of the Master of Architecture to students whose goals include establishment of professional standing.

Students who have received the Bachelor of Science in Architectural Studies, or an equivalent degree from another university, and who meet all requirements for admission to the graduate curriculum, may apply for admission to the Graduate College in that curriculum. Students with a five-year Bachelor of Architecture may make similar application for admission at the second-year level in the graduate curriculum.

Departmental facilities are limited, and preference will be given to the best-qualified applicants until quotas are filled.

In February 1967 the Department of Architecture began a foreign study program in France. Architectural students who qualify are selected to enroll in this program. Students pursue appropriate course work while abroad, including the analysis of significant cities and historic buildings of Europe.

The Department of Architecture occupies drafting rooms, lecture rooms, and offices in the Architecture Building, Flagg Hall, and Noble Hall. The Ricker Library of Architecture and Art is located in the Architecture Building.

FOUR-YEAR UNDERGRADUATE CURRICULUM OF THE SIX-YEAR PROGRAM IN ARCHITECTURE

For the degree of Bachelor of Science in Architectural Studies

This four-year curriculum occupies the undergraduate years of the six-year program described above. In the curriculum, normal course progress is imperative. A student failing to complete any required course more than one semester later than the time designated in the curriculum is prohibited from progressive registration in architectural courses until the deficiency is corrected. For the Bachelor of Science in Architectural Studies, 124 semester hours are required.

FIRST YEAR — FIRST SEMESTER	HOURS
Arch. 100 — Architecture Lectures	1
Hist. 111 — History of Western Civilization to 1815	4
Social science sequence	3
Rhet. 105 or 108 — Composition	4
Math. 120 — Calculus and Analytic Geometry	5
Total	17

SECOND SEMESTER	HOURS
Arch. 101 or elective	3
Hist. 112 — History of Western Civilization, 1815 to the Present	4
Social science sequence	3
Math. 131 — Calculus and Analytic Geometry (3), plus elective (2), or Math. 130 — Calculus and Analytic Geometry	5
Total	15

SECOND YEAR	
Arch. 171 — Basic Design Studio I	3
U.P. 171 — Planning of Cities and Regions	3
Approved general education sequence	4
Natural science elective	4
Total	14
Arch. 172 — Basic Design Studio II	3
C.S. 102 — Introduction to Automatic Digital Computing	3
Continuation of approved general education sequence	4
Natural science elective	4
Total	14

THIRD YEAR	
Arch. 211 — Introduction to Ancient and Medieval Architecture	3
Arch. 231 — Architectural Construction I	4
Arch. 251 — Statics and Dynamics	4
Arch. 271 — Basic Design Studio III	3
Elective or professional elective	3
Total	17
Arch. 212 — Introduction to Renaissance and Modern Architecture	3
Arch. 232 — Architectural Construction II	3
Arch. 252 — Strength of Materials and Design Applications	4
Arch. 272 — Basic Design Studio IV	3
Elective or professional elective	3
Total	16

FOURTH YEAR

Architecture history (Arch. 310-317)	3
Arch. 241 — Environmental Technology I	4
Arch. 351 — Theory and Design of Metal Structures	4
Arch. 371 — Architectural Design Studio I	5
Total	16

Architecture history (Arch. 310-317)	3
Arch. 242 — Environmental Technology II	4
Arch. 352 — Theory of Reinforced Concrete	3
Arch. 372 — Architectural Design Studio II	5
Total	15

Department of Art and Design

The curricula in art and design permit a student to attain a proficiency in art and design and to secure a liberal education. The first year of each curriculum is basic and cultural. Specialization begins in the second year.

All first-year students in art and design will be admitted to the general curriculum in art and design. After completing one year in the general curriculum students must select one of the more specialized art and design curricula. Students should be aware that admission into a specific degree curriculum from the general curriculum of the first year is limited by the number of students each curriculum is able to accommodate. When necessary, selection of students will be determined by grade-point averages.

Courses in the history and appreciation of art and certain courses in studio work are open to students from other colleges of the University.

A field of concentration in the history of art is also offered in the College of Liberal Arts and Sciences. (See page 293.)

Under the regulations of the Graduate College two master's degrees in art and design are offered. The degree of Master of Arts is offered with a major in either art history or art education and the degree of Master of Fine Arts in Art and Design in the studio areas.

The degree of Doctor of Philosophy in the History of Art is offered jointly by the Department of Art and Design and the Department of Architecture under the regulations of the Graduate College. The degree of Doctor of Education in Art Education is offered jointly by the Department of Art and Design and the College of Education under the regulations of the Graduate College.

The Department of Art and Design occupies studios, drafting rooms, and offices in nine different University buildings. The departmental faculty offices are in the Fine Arts Building, and the greater portion of the work is carried on there. The graduate painting studios are at 26 East Springfield Avenue in Champaign.

FRESHMAN PROGRAM FOR ALL ART AND DESIGN CURRICULA

This first-year requirement is included in all art and design curricula which follow.

FIRST YEAR FIRST SEMESTER	HOURS
Art 113 — Orientation to Art	1
Art 117 — Drawing	3
Art 119 — Design	3
Foreign language or elective	3-4
Rhet. 105 or 108 — Composition	4
Art and design or general elective	2-3
Total	17

SECOND SEMESTER	HOURS
Art 114 — Orientation to Art	1
Art 118 — Drawing	3
Art 120 — Design	3
Foreign language or elective	3-4
Elective	2
Art and design or general elective	2-3
Total	15

Students in any art and design curriculum to proceed in junior-level art and design courses must have earned a cumulative grade-point average of at least 3.25 (A=5.0). The cumulative average is to be computed as follows: (1) all University

of Illinois courses; (2) the combination of University of Illinois and transfer courses, the lowest of the two to govern.

CURRICULUM IN ART EDUCATION

For the degree of Bachelor of Fine Arts in Art Education

A minimum of 130 hours of credit is required for graduation. This curriculum prepares its graduates for teaching art in grades K through 12.

In addition to specified courses in art, a minimum of 8 semester hours must be acquired in one of the following areas of specialization: sculpture, painting, crafts, printmaking, graphic design, or art history.

The curriculum in art education prepares students for positions as teachers and supervisors of art in the public schools. The program places emphasis on methods, materials, processes, and practice teaching in selected Illinois schools. Upon completion, graduates are eligible for the State Special Certificate as defined by the Illinois State Teacher Certification Board.

For teacher education requirements applicable to all curricula, see pages 116 to 119.

GENERAL REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 or 108 and a speech communication performance elective	6-7
General psychology	3
One approved sequence of 6 hours in one of the natural sciences	6
One approved sequence of 6 hours in one of the humanities	6
American government (state and federal constitutions)	3
History of the United States	3
Physical and/or health education	3
Total	30-31

ART HISTORY	
Introduction to ancient and medieval art	4
Introduction to Renaissance and modern art	4
Advanced art history (200- or 300-level)	3
Total	11

GENERAL ART AND DESIGN	
Orientation to art	2
Drawing I, II	6
Design I, II	6
Life drawing I, II	4
Design III, IV	4
Total	22

ART EDUCATION	
Art education laboratory	2
Creative art for children	3
Art curriculum and practicum in the elementary grades	3
Organization of public school art programs	3
Total	11

PROFESSIONAL EDUCATION[1]	
Foundations of American education (educational policy studies)	3
Psychology of teaching and learning	3
Principles of education	2
Techniques of teaching	3
Educational practice (student teaching)	5
Total	16

ELECTIVES

Art electives	21
General electives	6
General or professional electives	13-14
Total	40-41

[1] Art education courses are applicable to professional education requirements for teacher certification.

TEACHER EDUCATION MINOR IN ART EDUCATION

REQUIRED COURSES	HOURS
Introduction to watercolor painting	2
Introduction to ancient and medieval art	3
Introduction to Renaissance and modern art	3
Drawing	2
Design	2
Crafts	4
Art education laboratory	4
Total	20

CURRICULUM IN CRAFTS

For the degree of Bachelor of Fine Arts in Crafts

The curriculum in crafts emphasizes professional training for the development of the self-sustaining craftsman, the teacher of crafts, and the designer-craftsman in industry. The present curriculum provides a choice of two areas of concentration: ceramic design and metal design. The emphasis within these areas of concentration is on the development of individual design capabilities and perceptions and upon the mastery of comprehensive technical skills. In conjunction with these individual areas of emphasis, each student is given experience in other craft media.

A total of 122 semester hours is required for the degree.

GENERAL REQUIREMENTS	HOURS
Rhet. 105 or 108	4
One approved sequence of 6 hours in each of the following areas: humanities, natural sciences, and social sciences	18
ELECTIVES	14-18
ART HISTORY	
Art 111 and 112 plus 6 hours advanced art history	14
GENERAL ART AND DESIGN	
Art 113 and 114 — Orientation to Art	2
Art 117, 118, 125, and 126 — Drawing	10
Art 119, 120, 131-132 or 133-134 — Design	10
ART ELECTIVES	10-12
PROFESSIONAL ELECTIVES	12-14
CRAFTS	
Art 192 and 194 plus major sequence in ceramics or metal and 3 or 4 hours in allied crafts courses	25-26

CURRICULUM IN GRAPHIC DESIGN

For the degree of Bachelor of Fine Arts in Graphic Design

The curriculum in graphic design prepares the student for entrance into the field of visual communications, including commercial, educational, and informational applications. Problems explore printed design in two and three dimensions, the filmic media including photography, film making, and television, and the interrelationship of pertinent disciplines such as journalism, communications, advertising, and marketing. Emphasis is placed on a balance of technical and conceptual skills, and on the expansion of the student's knowledge of the process employed by the designer in visual problem solving. Each assignment is taken through analysis, research, organization, aesthetics, and technical execution — from concept through final presentation.

A total of 122 semester hours is required for the degree.

GENERAL REQUIREMENTS	HOURS
Rhet. 105 or 108	4
One approved sequence of 6 hours in each of the following areas: humanities, natural sciences, and social sciences	18
Communications elective (Comm. 220 or 251)	3
Total	25

ART HISTORY	
Art 111 and 112 — Introduction to the History of Art	8
Advanced art history	6
Total	14

GENERAL ART AND DESIGN	
Art 113 and 114 — Orientation to Art	2
Art 117 and 118 — Drawing I and II	6
Art 119 and 120 — Design I and II	6
Art 131 and 132 — Elementary Composition, or Art 133 and 134 — Design Workshop	4
Total	18

GRAPHIC DESIGN

A minimum of 22 hours, terminating in a thesis project in the senior year. Graphic design courses presently include:

Art 159 — Graphic Design: Basic Skills	2
Art 160 — Graphic Design: Production	2
Art 161 and 162 — Graphic Design I and II	4
Art 265, 266, 267, and 268 — Graphic Design III, IV, V, and VI	12
Art 269 — Graphic Design Senior Project	2
Total	22

ELECTIVES	
General electives (see college list of approved electives)	25-29
Professional electives	14-18
Total	43

CURRICULUM IN THE HISTORY OF ART

For the degree of Bachelor of Fine Arts in the History of Art

The curriculum in the history of art offers a broad cultural education which unites academic and studio training. The curriculum provides sound preparation for the graduate study required for museum work or teaching at the college level.

A total of 122 semester hours is required for the degree.

GENERAL REQUIREMENTS	HOURS
Rhet. 105 or 108	4
One approved sequence of at least 6 hours in each of the following areas: humanities, social science, natural science	18
Electives (see college list of approved electives)[1]	28-46
Supportive electives: In addition to the general education requirements a minimum of 6 hours chosen with the consent of the adviser in one of the following areas: ancient and modern literature, anthropology, classics, history, or philosophy	6
Total	56-74

SUPPORTING REQUIREMENTS IN ART	
Art 111 and 112 — Introduction to the History of Art	8
Art 113 and 114 — Orientation to Art	2
Art 117 and 118 — Drawing I and II	6
Art 119 and 120 — Design I and II	6
Art electives	8-14
Total	30-36

ADVANCED ART HISTORY	
Advanced art history	18-36
Total	18-36

[1] One foreign language through the 104 level or equivalent is required. French or German is strongly recommended.

CURRICULUM IN INDUSTRIAL DESIGN

For the degree of Bachelor of Fine Arts in Industrial Design

The curriculum in industrial design provides education in three-dimensional design for production, to meet the needs of people and their environment. Emphasis is placed on the awareness of the market demand for design, cognizance of methods and materials of production and their relative costs, creation of designs which are in visual harmony with their environment and which are satisfying to the consumer, and responsiveness to the changes in technology and cultural patterns.

A total of 122 semester hours is required for the degree.

GENERAL REQUIREMENTS	HOURS
Rhet. 105 or 108	4
One approved sequence of 6 hours plus a 3-hour elective in social science	9
One approved sequence of 6 hours plus a 3-hour elective in humanities	9
One approved sequence of 8 hours in one of the natural sciences	8
Total	30

ART HISTORY	
Art 111 — Introduction to Ancient and Medieval Art	4
Art 112 — Introduction to Renaissance and Modern Art	4
Art 210 — History of Furniture and Interiors	2
Advanced art or architecture history	3
Total	13

GENERAL ART AND DESIGN	
Art 113 and 114 — Orientation to Art	2
Art 117 and 118 — Drawing I, II	6
Art 119 and 120 — Design I, II	6
Art 121 and 122 — Drawing Theory I, II	4
Art 162 — Graphic Design II	2
Art 265 — Graphic Design III	3
Total	23

INDUSTRIAL DESIGN

Art 133 and 134 — Design Workshop I, II 4
Art 175 — Design Methodology 2
Art 271 and 272 — Materials and Processes 6
Art 275 and 276 — Industrial Design I, II 6
Art 277 and 278 — Industrial Design III, IV 10
Total 28

ELECTIVES

Technical electives from approved list, minimum 6
Art electives 6-10
General electives (see college list of approved electives) 12-16
Total 28

Technical Electives

	HOURS
Adv. 281 — Introduction to Advertising	3
Adv. 382 — Advertising Creative Strategy	3
Adv. 383 — Advertising Media Policy and Strategy	3
Adv. 388 — Advertising in Contemporary Society	3
Arch. 251 — Statics and Dynamics	4
Arch. 252 — Strength of Materials and Design Applications	4
Arch. 323 — Social and Behavioral Factors	3
Arch. 326 — Impact of Technology on Design	3
B. Adm. 202 — Principles of Marketing	3
B. Adm. 210 — Management and Organizational Behavior	3
B. Adm. 247 — Introduction to Management	3
B. Adm. 320 — Marketing Research	3
B. Adm. 344 — Consumer Market Behavior	3
Comm. 220 — Processes and Systems of Communications	3
C.S. 101 — Introduction to Automatic Digital Computing	3
C.S. 103 — Introduction to Social and Behavioral Science Digital Computer Programming	3
G.E. 282 — Introduction to Patent Law	2
L.A. 213 — People, Land, and Environment	2-4
Math. — Calculus or Geometry	3
M.E. 180 — Engineering Materials and Processes	3
Phycs. 140 — Practical Physics: How Things Work	3
Phycs. 150 — Physics and the Modern World	3
Physl. 305 — Principles of Ergonomics	4
Physl. 306 — Quantitative Methods in Ergonomics	4
Psych. 258 — Human Performance in Man-Machine Systems	3
Psych. 356 — Human Factors in Equipment Design	3

CURRICULUM IN MEDICAL ART

For the degree of Bachelor of Science in Medical Art

The curriculum in medical art offers extensive and intensive training leading to professional competence in the field of medical illustration. The program consists of five years of study; the first three years of the curriculum are offered at the Urbana-Champaign campus and the fourth and fifth years must be completed at the Medical Center, Chicago. The final two years include work in the anatomy laboratories and in the medical art studios where skills and techniques in all media and practical applications are achieved. A minimum of 95 semester hours is required prior to admission to the Medical Center campus. Only the best-qualified students are admitted at the fourth-year level at the Medical Center campus since facilities are limited.

GENERAL REQUIREMENTS	HOURS
Rhet. 105 or 108	4
One approved sequence of at least 6 hours each in the humanities and social sciences	12
Physl. 103 and 234	9
Zool. 104 and 333	9
General electives (see college list of approved electives)	5-11
Total	39-45

ART HISTORY	
Art 111 and 112 — Introduction to History of Art	8

GENERAL ART AND DESIGN	
Art 113 and 114 — Orientation to Art	2
Art 117, 118, 125, 126, 225, and 226 — Drawing	14
Art 119 and 120 — Design	6
Art 129 and 130 — Anatomy	4
Art 131 and 132 — Elementary Composition	4
Art 151 and 152 — Sculpture	4
Art 162 — Graphic Design II	2
Art 265 — Graphic Design III	3
Art 215 — Basic Photography, or Journ. 223 — Photojournalism	3
Professional electives	0-6
Total	42-48

CURRICULUM IN PAINTING

For the degree of Bachelor of Fine Arts in Painting

The curriculum in painting provides an extensive training as preparation for professional practice in painting and printmaking in their various aspects. The first two years are devoted primarily to the study of design and composition and the acquisition of representational skills; the last two years are devoted to the development of creative expression in painting, drawing, printmaking, and other media. When followed by a program leading to the degree of Master of Fine Arts in Painting and Printmaking, this curriculum is recommended as preparation for teaching painting and related subjects at the college level.

A total of 122 hours is required for this degree.

GENERAL REQUIREMENTS	HOURS
Rhet. 105 or 108	4
One approved sequence of 6 hours in each of the following areas: humanities, social sciences, and natural sciences	18
Total	22

ART HISTORY	
Art 111 and 112 — Introduction to the History of Art	8
Advanced art history	6
Total	14

GENERAL ART AND DESIGN	
Art 113 and 114 — Orientation to Art	2
Art 117 and 118 — Drawing I and II	6
Art 119 and 120 — Design I and II	6
Art 125 and 126 — Life Drawing I and II	4
Art 225 and 226 — Intermediate Drawing	4
Art 131 and 132 — Elementary Composition	4
Total	26

PAINTING

The student must complete ten courses in painting and composition to a minimum of 26 hours. Qualified students are encouraged to arrange special projects in conjunction with advisers. Painting and composition courses presently include:

Art 141 and 142 — Still Life 4
Art 231 and 232 — Intermediate Composition 6
Art 233 and 234 — Advanced Composition 6
Art 243 and 244 — Intermediate Painting 4
Art 245 and 246 — Advanced Painting and Drawing 6

ELECTIVES

General electives (see college list of approved electives) 14-18
Professional electives (including one course in printmaking) 16-20
Total 34

CURRICULUM IN SCULPTURE

For the degree of Bachelor of Fine Arts in Sculpture

The curriculum in sculpture provides a broad and solid foundation in the fundamental disciplines of drawing, design, and painting, including both traditional and contemporary concepts. The learning of the time-honored techniques of sculpture such as modeling and carving is required, and experimentation with welding, metal casting, and plastics is fostered. The student is encouraged to experience a wide range of materials, techniques, methods, and styles.

A total of 122 semester hours is required for the degree.

GENERAL REQUIREMENTS **HOURS**

Rhet. 105 or 108 4
One approved sequence of at least 6 hours in each of the following areas: humanities, natural sciences, and social sciences 18
Total 22

HISTORY OF ART

Art 111 and 112 — Introduction to the History of Art 8
Advanced art history 6
Total 14

GENERAL ART AND DESIGN

Art 113 and 114 — Orientation to Art 2
Art 117 and 118 — Drawing 6
Art 119 and 120 — Design I and II 6
Art 125 and 126 — Life Drawing 4
Art 141 and 142 — Still Life 4
Art 192 — Metalwork and Jewelry 2
Art 194 — Pottery 2
Total 26

SCULPTURE

The professional student must complete ten courses in sculpture to a minimum of 24 hours. Qualified students are encouraged to arrange special projects in conjunction with advisers. Sculpture courses presently include:

Art 151 and 152 — Sculpture I and II 4
Art 253 and 254 — Intermediate Sculpture 4
Art 255 and 256 — Sculpture Material and Techniques 6
Art 257 and 258 — Advanced Sculpture 4
Art 259 and 260 — Advanced Sculpture Material and Techniques 6

ELECTIVES

General electives (see college list of approved electives) 20-34
Professional electives 12-16
Total 36

Department of Dance

All applicants for the dance curricula, the Bachelor of Fine Arts in Dance or the Bachelor of Arts in the Teaching of Dance, are required to satisfy a qualifying audition prior to approval for admission. Potential new students who have a strong interest in dance but who have not had formal training are encouraged to audition. Instructions regarding the scheduling and content of auditions will be sent to all applicants by the Office of Admissions and Records upon the receipt of a completed application.

Dance is an art form using movement as its medium of expression and within the dance major curricula, emphasis is placed on movement proficiency and understanding. Students are required to enroll in a daily modern technique class while in residence and must achieve the level of advanced technique prior to graduation. An environment is provided in which dance students may begin to develop as artists-choreographers. A dance composition sequence begins with improvisation, continues through beginning, intermediate, and advanced composition, and culminates with dance production workshop. The dance curricula also include musical training for dancers, ballet technique, dance teaching methods courses, and courses in dance history, theory, and philosophy. Dancers rehearse and perform in student works as well as those of faculty and guest choreographers.

The Krannert Center for the Performing Arts houses the Department of Dance and a large studio with mirrors and barres. Theatre space in the center is also available for dance performances. Other studios are located at 1115 West Oregon Street, Urbana, adjacent to the Krannert Center for the Performing Arts, and in Freer Gymnasium, Urbana. A space for individual technical practice is also provided at 901 West Illinois Street, Urbana.

CURRICULUM IN DANCE

For the degree of Bachelor of Fine Arts in Dance

The Bachelor of Fine Arts in Dance is a program offering preprofessional training in modern dance performance and composition with opportunity for study in ballet technique. The curriculum includes liberal arts courses as well as professional dance training. The presentation of a satisfactory senior project is a degree requirement for the Bachelor of Fine Arts in Dance. The program is designed to prepare dancers with further training for professional work with a dance company as well as for teaching dance in private studios and schools, colleges, and universities. Students are also prepared to enter graduate school for further academic work in dance.

A total of 130 hours is required for this degree.

FIRST YEAR — FIRST SEMESTER	HOURS
Dance 150 — Orientation to Dance	2
Dance 160 — Beginning Technique[1]	3
Dance 162 — Improvisation I	1
Dance 168 — Music Theory and Practice for Dance I	2
Rhet. 105 or 108 — Composition	4
Electives or professional electives	4
or Biol. 100 — Biological Science I[2]	4
Total	16

SECOND SEMESTER	HOURS
Dance 160 — Beginning Technique[1]	3
Dance 163 — Improvisation II	1
Dance 169 — Music Theory and Practice for Dance II	2
Physl. 103 — Introduction to Human Physiology,[2] or Biol. 101 — Biological Science II[2]	4
Electives	5
Total	15

[1] Students are required to enroll in a technique class, Dance 160, 165, 260, or 360, each semester in residence as placed and should achieve the level of and enroll in one semester of Dance 260 prior to graduation. Each course may be repeated up to 12 hours.

[2] Biol. 100 and 101 or Zool. 104 and Physl. 103, and Physl. 234 satisfy the College of Fine and Applied Arts natural science sequence.

SECOND YEAR

Dance 164 — Beginning Composition 2
Dance 165 — Intermediate Technique[1] 3
Dance 166 — Beginning Ballet I, or
Dance 266 — Intermediate Ballet I[3] 1
Humanities sequence[4] 3
Physl. 234 — Human Anatomy and
Physiology[2] 5
Social science sequence[4] 3
Total 17

Dance 165 — Intermediate Technique[1] 3
Dance 167 — Beginning Ballet II, or
Dance 267 — Intermediate Ballet II[3] ...1
Dance 264 — Intermediate Composition ...2
Humanities sequence[4] 3
Social science sequence[4] 3
Electives 4
Total 16

THIRD YEAR

Dance 243 — Creative Dance for Children.3
Dance 260 — Advanced Technique 3
Dance 340 — History of Dance I 3
Dance 365 — Advanced Composition 2
Music literature elective 3-4
Electives or professional elective[5] 2
Total 16-17

Dance 244 — Teaching of Dance 3
Dance 260 — Advanced Technique 3
Dance 341 — History of Dance II 3
Music literature elective 3-4
Electives or professional elective[5] 4
Total 16-17

FOURTH YEAR

Dance 260 — Advanced Technique I, or
Dance 360 — Advanced Technique II ...3
Dance 346 — Theory and Philosophy of
Dance 3
Electives or professional elective[5] 6
Electives 4-5
Total 16-17

Dance 260 — Advanced Technique I, or
Dance 360 — Advanced Technique II ..3
Dance 345 — Dance Production Workshop.3
Music 304 — Composition for Dance 2
Electives or professional elective[5] 4
Electives 4-5
Total 16-17

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[1] Students are required to enroll in a technique class, Dance 160, 165, 260, or 360, each semester in residence as placed and should achieve the level of and enroll in one semester of Dance 260 prior to graduation. Each course may be repeated up to 12 hours.

[2] Biol. 100 and 101 or Zool. 104 and Physl. 103, and Physl. 234 satisfy the College of Fine and Applied Arts natural science sequence.

[3] Dance 166, 167, 266, 267 (ballet technique) may each be repeated once for credit.

[4] Humanities and social science sequence: See College of Fine and Applied Arts approved sequences.

[5] Professional electives: Dance 350 — Repertory Workshop may be repeated up to 12 hours; Dance 351 — Special Problems may be repeated up to 8 hours; Dance 199 — Undergraduate Open Seminar. Additional courses in ballet technique are recommended.

CURRICULUM FOR THE PREPARATION OF TEACHERS OF DANCE

For the degree of Bachelor of Arts in the Teaching of Dance

A total of 130 hours is required for the degree. Graduates of this curriculum are eligible for the Standard Special Certificate and the Standard High School Certificate as defined by the Illinois State Certification Board and are prepared to teach dance in the public schools, elementary through high school level. In this degree program emphasis is placed upon a strong professional dance background as well as liberal arts courses and fulfillment of teacher certification requirements.

GENERAL EDUCATION REQUIREMENTS **HOURS**

Sp. Com. 111 and 112, or Rhet. 105 and a speech communication performance elective, or Rhet. 108 and a speech communication performance elective 6-7
Biology or physiology 3-6
Human anatomy 5
History of the United States 3

American government (state and federal constitutions)	3
Humanities (language arts)	6
Introductory psychology	3
Physical and/or health education	3
Total	32-36

PROFESSIONAL EDUCATION

Orientation to dance in the schools	2
Foundations of American education (educational policy studies)	3
Psychology of teaching and learning	3
Child development	3
Principles of education	2
Secondary school dance methods	3
Educational practice	5
Total	21

PROFESSIONAL REQUIREMENTS IN DANCE

Modern technique	20-23
Ballet	1
Improvisation	2
Composition	4
Dance production workshop	3
Dance history	6
Creative dance for children	3
Dance in the elementary school	2
Music theory and practice for dance	4
Professional dance electives	7-12
Dance theory and philosophy	3
Repertory	2
Workshop	1-8
Total	52-60

SUPPORTING AREA REQUIREMENTS

Music literature electives	6-8
Electives (selected in consultation with adviser)	6-20
Total	12-28

TEACHER EDUCATION MINOR IN DANCE

REQUIRED COURSES	HOURS
Orientation to dance	2
Dance technique courses	9
Improvisation	2
Beginning composition	2
Music theory and practice for dance	4
Creative dance for children	3
Teaching of dance	3
Total	25

Department of Landscape Architecture

The Department of Landscape Architecture offers a four-year undergraduate curriculum leading to the professional degree of Bachelor of Landscape Architecture and a graduate curriculum leading to the Master of Landscape Architecture.

The undergraduate curriculum is a balanced program of technical, design, and general education courses which equip the student with the necessary skills for

professional practice in private offices or public agencies. The graduate curriculum offers advanced work and opportunities for specialization in selected areas toward potential careers in teaching, public service, or private practice.

Departmental headquarters and the library are located in Mumford Hall. Classrooms, studios, and offices are located in Mumford Hall and in 1203, 1205, and 1205½ West Nevada Street, Urbana.

CURRICULUM IN LANDSCAPE ARCHITECTURE

For the degree of Bachelor of Landscape Architecture

This curriculum requires 132 semester hours of credit for graduation.

FIRST YEAR — FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
L.A. 101 — Introduction to Landscape Architecture	2	Arch. 172 — Basic Design II	3
Arch. 171 — Basic Design I	3	Elective (general education sequence)[1]	6
Biol. 100 or Bot. or Geog. 103[1]	4	Math. 104 — Algebra and Trigonometry, or Math. 114 — Trigonometry	2-3
U.P. 171 — Planning Cities and Regions	3	Supporting elective[2]	3
Rhet. 105 or 108[3] — Composition	4	Elective	2
Total	16	Total	16-17
SECOND YEAR			
L.A. 133 — Landscape Design	4	L.A. 134 — Site Design	4
L.A. 141 — Land Form Design	3	L.A. 122 — Landscape Surveys	3
Supporting elective[2]	6	L.A. 151 — Plant Materials I	3
Elective (general education sequence)	3	Supporting elective	3
Total	16	Elective (general education sequence)	3
		Total	16
THIRD YEAR			
L.A. 181 — Visual Communications	2	L.A. 182 — Visual Communications	2
L.A. 235 — Recreational Land Design	4	L.A. 236 — Urban Land Design	4
L.A. 152 — Plant Materials II	3	L.A. 253 — Planting Design I	3
L.A. 243 — Site Engineering	3	L.A. 244 — Site Construction	3
Elective (general education sequence)	4	Electives (general education sequence)	4-5
L.A. 200 — Field Trip I	0	Total	16-17
Total	16		
FOURTH YEAR			
L.A. 337 — Regional Landscape Design	5	L.A. 338 — Thesis Design Project	5
Supporting electives	3-4	L.A. 246 — Professional Practice	3
L.A. 254 — Planting Design II	3	L.A. 214 — History of Landscape Architecture	3
Electives	7	Supporting elective	3
L.A. 200 — Field Trip II	0	Elective	3
L.A. electives	2-3	Total	17
Total	18		

[1] A minimum of 6 credit hours of approved sequence courses is required in each of the areas of humanities, social sciences, or natural sciences for a minimum total of 18 credit hours.

[2] A minimum total of 18 credit hours of professionally related courses selected from the recommended list of Supporting Electives is required, with a minimum of 3 credit hours in each of the categories of history, communications, techniques, and environment. (These are in addition to general education requirements.) Consult the Department of Landscape Architecture or the College of Fine and Applied Arts for the current list of recommended supporting electives.

[3] The sequence Sp. Com. 111 and 112 (6 hours) is a recommended alternative to rhetoric.

School of Music

All applicants for music curricula are required to satisfy a qualifying audition in the major performance area prior to approval for admission. In addition, applicants for music composition or history of music programs are required to submit original scores or other pertinent writings to substantiate their ability to pursue work in their chosen program of studies. Auditions are held on designated dates during the academic year.

Applicants who cannot appear in person may submit tape recordings and other required materials, but all are urged to complete the requirement as early as possible to expedite approval for admission. Each applicant must write to the director of the School of Music, University of Illinois at Urbana-Champaign, 3034 Music Building, Urbana, Illinois 61801, specifying his major performance area and curriculum, to make specific audition arrangements.

The School of Music offers a curriculum in music, with four options leading to the degree of Bachelor of Music, and a curriculum in music education with vocal-choral or instrumental emphasis, leading to the degree of Bachelor of Science in Music Education. A student enrolled in any applied music curriculum pursues throughout the four years of his course a major applied subject (such as piano, voice) in which two thirty-minute lessons a week are taken; and a minor or secondary applied subject for two years during which one thirty-minute lesson a week is taken. Students in composition and history of music must complete 16 hours in the major applied music subject. Public performance is a definite part of the training in applied music, and all students, when sufficiently advanced, are required to participate in student programs. As part of the requirements for the Bachelor of Music degree in applied music and composition, senior students must present a satisfactory public recital.

Courses leading to the Bachelor of Arts degree with a major in music in the College of Liberal Arts and Sciences are offered to qualified students. (See page 318.) Courses in music leading to this degree are predominantly in the fields of theory, history, and applied music. Applicants are required to have a rudimentary knowledge of theory and to satisfy a qualifying audition in the principal performance area.

Applied music and courses in the history, theory, and appreciation of music are open to all qualified students in the University.

Graduate courses leading to the degree of Master of Music, Master of Science in Music Education, Advanced Certificate in Music Education, Doctor of Education in Music Education, Doctor of Philosophy in Musicology, and Doctor of Musical Arts in Composition, Choral Music, and Performance and Literature are offered under the regulations of the Graduate College.

The University symphony orchestras, Chamber Orchestra, Wind Ensemble, Contemporary Chamber Players, jazz bands, choral groups (Oratorio Society, University Chorus, Women's Glee Club, Men's Glee Club, University Choir), and small vocal ensembles are open to qualified students from any college. The Oratorio Society, University Chorus, Madrigal Singers, Opera Group, and other ensembles are also open to members of the faculty and staff and residents of the community who are admitted by audition or by permission of the respective conductors. All students seeking degrees in the School of Music are required to complete four semesters of music ensemble courses. A student may register for a maximum of two such courses concurrently and may use a maximum of 6 semester hours of ensemble credit to apply toward his degree.

The faculty and students of the School of Music present concerts and recitals each week of the school year. The School of Music also presents frequent radio broadcasts on and off campus and participates in television programs. Chamber

music concerts are given frequently throughout the year by members of the faculty of the School of Music. Faculty artists and student musical groups are available for off-campus performances through the Extension in Music, Division of University Extension, 608 South Mathews Avenue, Urbana, Illinois 61801.

The School of Music occupies the Music Building, Tina Weedon Smith Memorial Hall, Stiven House, and space in the Krannert Center for the Performing Arts. The facilities are equipped extensively with classrooms, studios, practice rooms, experimental-electronic music laboratories, musical instruments and audio-equipment, and several auditoria designed for public recitals and concerts.

CURRICULUM IN MUSIC

For the degree of Bachelor of Music

This curriculum requires 130 semester hours of credit for graduation.

The general education sequence requirements in the humanities, social sciences, and natural sciences and electives must be met from the college elective and general education sequence lists starting on page 250.

Instrumental Music Major

The instrumental major may be taken in piano, organ, harpsichord, violin, viola, violoncello, string bass, flute, clarinet, oboe, bassoon, alto saxophone, cornet or trumpet, french horn, trombone, baritone, tuba, percussion, or harp.

A student enrolled in this program takes two applied subjects, one a major (32 hours) and the other a minor (8 hours).

Juniors and seniors must present satisfactory public recitals as part of the requirements for the Bachelor of Music degree.

FIRST YEAR — FIRST SEMESTER	HOURS
Major applied music subject	4
Minor applied music subject	2
Music 101 — Fundamentals of Musical Analysis I	2
Music 108 — Rudiments of Musical Vocabulary and Notation	1
Music 110 — Basic Music Literature	2
Rhet. 105 or 108, or Sp. Com. 111 — Verbal Communication	3-4
Total	14-15

SECOND SEMESTER	HOURS
Major applied music subject	4
Minor applied music subject	2
Music 102 — Fundamentals of Musical Analysis II	3
Music 109 — Ear Training and Sight Singing	1
Elective or Sp. Com. 112 — Verbal Communication	2-3
Elective	2
Total	14-15

SECOND YEAR	
Major applied music subject	4
Minor applied music subject	2
Music 103 — Selected Studies in Style Analysis I	4
Music 213 — History of Music I	3
Foreign language	4
Total	17

Major applied music subject	4
Minor applied music subject	2
Music 104 — Selected Studies in Style Analysis II	4
Music 214 — History of Music II	3
Foreign language	4
Total	17

THIRD YEAR	
History of music[1]	3
Major applied music subject	4
Music 300 — Eighteenth Century Counterpoint	3
Music ensemble	1
Electives	6
Total	17

History of music[1]	3
Major applied music subject	4
Music 301 — Fugue	3
Music ensemble	1
Electives	6
Total	17

FOURTH YEAR

Major applied music subject	4
Music 330 — Applied Music Pedagogy (piano and string majors only)	2
Music ensemble	1
Elective	3
Electives or professional electives	6
Total	16

Major applied music subject	4
Music 330 — Applied Music Pedagogy (piano and string majors only)	2
Music ensemble	1
Electives	5
Electives or professional electives	5
Total	17

[1] To be chosen from Music 310, 311, 312, 313, 314, 315, or 317.

Music Composition Major

Within this program, major emphasis may be placed on the theory of music. Necessary course adjustments require approval of the theory division.

Seniors must present a satisfactory recital of original compositions as part of the requirements for the Bachelor of Music degree. If the major is theory, an advanced project determined and approved by the theory division is required.

FIRST YEAR FIRST SEMESTER	HOURS
Applied music[1]	2
Music 101 — Fundamentals of Musical Analysis I	2
Music 108 — Rudiments of Musical Vocabulary and Notation	1
Music 106 — Composition	2
Music 110 — Basic Music Literature	2
Rhet. 105 or 108, or Sp. Com. 111 — Verbal Communication	3-4
Elective	3
Total	15-16

SECOND SEMESTER	HOURS
Applied music	2
Music 102 — Fundamentals of Musical Analysis II	3
Music 109 — Ear Training and Sight Singing	1
Elective or Sp. Com. 112 — Verbal Communication	3-4
Elective	3
Music 106 — Composition	2
Total	14-15

SECOND YEAR

Applied music	2
Music 103 — Selected Studies in Style Analysis I	4
Music 106 — Composition	2
Music 213 — History of Music I	3
French, German, or Italian	4
Total	15

Applied music	2
Music 104 — Selected Studies in Style Analysis II	4
Music 106 — Composition	2
Music 214 — History of Music II	3
French, German, or Italian	4
Total	15

THIRD YEAR

Applied music	2
History of music[2]	3
Music 200 — Instrumentation I	2
Music 300 — Eighteenth Century Counterpoint	3
Music 306 — Composition	4
Music ensemble	1
Elective	3
Total	18

Applied music	2
History of music[2]	3
Music 201 — Instrumentation II	2
Music 301 — Fugue	3
Music 306 — Composition	4
Music ensemble	1
Elective	3
Total	18

[1] Whether or not piano has been the applied music subject, the student must acquire a thorough practical knowledge of the pianoforte.

[2] To be chosen from Music 310, 311, 312, 313, 314, 315, or 317.

FOURTH YEAR

Applied music	2
Music 306 — Composition	4
Music 320 — Proseminar	2
Music ensemble	1
Electives	6
Elective or professional elective	2
Total	17

Applied music	2
Music 306 — Composition	4
Music 320 — Proseminar	2
Music 315 — Contemporary Music	3
Music ensemble	1
Elective	3
Elective or professional elective	2
Total	17

History of Music Major

FIRST YEAR FIRST SEMESTER	HOURS
Applied music[1]	4
Music 101 — Fundamentals of Musical Analysis I	2
Music 108 — Rudiments of Musical Vocabulary and Notation	1
Music 110 — Basic Music Literature	2
Rhet. 105 or 108, or Sp. Com. 111 — Verbal Communication	3-4
Elective or professional elective	2
Total	14-15

SECOND SEMESTER	HOURS
Applied music[1]	4
Music 102 — Fundamentals of Musical Analysis II	3
Music 109 — Ear Training and Sight Singing	1
Elective or Sp. Com. 112 — Verbal Communication	2-3
Electives or professional electives	4
Total	14-15

SECOND YEAR

Applied music[1]	4
Music 103 — Selected Studies in Style Analysis I	4
Music 108 — Ear Training II	1
Music 213 — History of Music I	3
French or German[2]	4
Total	15

Applied music[1]	4
Music 104 — Selected Studies in Style Analysis II	4
Music 109 — Ear Training III	1
Music 214 — History of Music II	3
French or German[2]	4
Total	15

THIRD YEAR

History of music[3]	3
Music 300 — Eighteenth Century Counterpoint	3
Music ensemble	1
French or German[2]	4
Literature[4]	3
Electives (nonmusic)	4
Total	18

History of music[3]	3
Music 301 — Fugue	3
Music ensemble	1
French or German[2]	4
Literature[4]	3
Electives (nonmusic)	4
Total	18

FOURTH YEAR

History of music[3]	3
Music 229 — Thesis	2
History	3
Music theory (306, 307, 308, 318)	2-3
Music ensemble	1
Electives or professional electives	6-7
Total	18

History of music[3]	3
Music 299 — Thesis	2
History	3
Music theory (306, 307, 308, 319)	2-3
Music ensemble	1
Electives or professional electives	5-6
Total	17

[1] Whether or not piano has been the applied music subject, the student must demonstrate reasonable facility in piano by the end of the sophomore year.

[2] Two years in one language are required except with special permission of adviser.

[3] To be chosen from Music 310, 311, 312, 313, 314, 315, or 317.

[4] Engl. 363 and 364 are recommended.

Voice Major

The major applied music subject throughout the course includes work in vocal diction as well as private lessons in voice. At least 8 hours each in Italian, French, and

German are required for the voice major. A student who has not completed two years of one of these languages in high school should begin his study of languages during his freshman year.

Juniors and seniors must present satisfactory public recitals as part of the requirement for the Bachelor of Music degree.

FIRST YEAR — FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Music 101 — Fundamentals of Musical Analysis I	2	Music 102 — Fundamentals of Musical Analysis II	3
Music 108 — Rudiments of Musical Vocabulary and Notation	1	Music 109 — Ear Training and Sight Singing	1
Music 110 — Basic Music Literature	2	Music 166 — English Diction, or Music 167 — Italian Diction	1
Music 166 — English Diction, or Music 167 — Italian Diction	1	Music 180 — Piano	2
Music 180 — Piano	2	Music 181 — Voice	3
Music 181 — Voice	3	Elective or Sp. Com. 112 — Verbal Communication	2-3
Rhet. 105 or 108, or Sp. Com. 111 — Verbal Communication	3-4	Elective	2
Total	14-15	Total	14-15
SECOND YEAR			
Music 103 — Selected Studies in Style Analysis I	4	Music 104 — Selected Studies in Style Analysis II	4
Music 168 — German Diction, or Music 169 — French Diction	1	Music 168 — German Diction, or Music 169 — French Diction	1
Music 180 — Piano	2	Music 180 — Piano	2
Music 181 — Voice	3	Music 181 — Voice	3
Music 213 — History of Music I	3	Music 214 — History of Music II	3
Foreign language	4	Foreign language	4
Total	17	Total	17
THIRD YEAR			
History of music[1]	3	History of music[1]	3
Music ensemble	1	Music ensemble	1
Music 300 — Eighteenth Century Counterpoint	3	Music 301 — Fugue	3
Music 366 — Vocal Repertoire I	1	Music 367 — Vocal Repertoire II	1
Music 381 — Voice	3	Music 381 — Voice	3
Foreign language	4	Foreign language	4
Elective	3	Elective	3
Total	18	Total	18
FOURTH YEAR			
Music ensemble	1	Music ensemble	1
Music 330 — Applied Music Pedagogy	2	Music 330 — Applied Music Pedagogy	2
Music 381 — Voice	3	Music 381 — Voice	3
Electives	6	Electives	6
Electives or professional electives	4	Elective or professional elective	3
Total	16	Total	15

[1] To be chosen from Music 310, 311, 312, 313, 314, 315, or 317.

CURRICULUM IN MUSIC EDUCATION

For the degree of Bachelor of Science in Music Education

A minimum of 130 hours of credit is required for graduation. This curriculum prepares its graduates for teaching music in grades K through 12. For teacher education requirements applicable to all curricula, see pages 116 to 119.

Vocal-Choral Emphasis

GENERAL REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 or 108 and a performance-based speech communication course	6
General psychology	3
One approved sequence in the natural sciences	6
One approved sequence in the humanities	6
U.S. history	3
U.S. government (including Illinois and federal constitutions)	3
English or American literature	3
Physical and/or health education	3
Dramatics or acting for teachers	3
Total	36

PROFESSIONAL EDUCATION	
Foundations of American education (educational policy studies)	2
Psychology of teaching and learning	3
Introduction to teaching music	2
Principles of education	2
Technic of teaching music	3
Educational practice	6-10
Total	18-22

MUSIC REQUIREMENTS	
Applied music major[1]	8
Piano	8
Voice	8
Conducting	6
Music theory and sightsinging	15
Music history and literature	8
Music ensemble	4
Choral music education	2
Instrumental music education	2
General music education	6
Total	67

ELECTIVES	
General or professional electives	5-9

[1] Voice majors must include 4 hours of diction.

Instrumental Emphasis

GENERAL REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 or 108 and a performance-based speech communication course	6
General psychology	3
One approved sequence in the natural sciences	6
One approved sequence in the humanities	6
U.S. history	3
U.S. government (including Illinois and federal constitutions)	3
English or American literature	3
Physical and/or health education	3
Total	33

PROFESSIONAL EDUCATION	
Foundations of American education (educational policy studies)	2
Educational psychology	3
Introduction to teaching	2
Principles of education	2

Technic of teaching	3
Educational practice	6-10
Total	18-22

MUSIC REQUIREMENTS

Applied music major	12
Group instruction in piano[2]	6
Conducting	6
Music theory and sightsinging	17
Music history and literature	8
Supplementary instruments	12
Voice or choral techniques	2
Music ensemble	4
Instrumental music education	2
Total	69

ELECTIVES

General or professional electives	6-10

[2] If the applied music major is piano, the student in consultation with his adviser, must select a secondary major instrument in winds, percussion, or strings as a substitute for class piano.

TEACHER EDUCATION MINOR IN INSTRUMENTAL MUSIC

REQUIRED COURSES	HOURS
Rudiments of theory	2
Basic music literature	2
Elements of conducting	2
String instruments	4
Piano, or band and orchestral instruments (to be chosen with consent of adviser)	4
Teaching of instrumental music	2
Wind instruments (two courses required)	4
Total	20

TEACHER EDUCATION MINOR IN VOCAL MUSIC

REQUIRED COURSES	HOURS
Rudiments of theory	2
Basic music literature	2
Elements of conducting	2
Class instruction in voice	2
Piano	4
Voice	4
Choral literature and conducting I	2
Teaching of choral music	2
Music ensemble (vocal)	1
Total	21

Department of Theatre

All applicants for the curriculum in acting are required to satisfy a qualifying audition prior to approval for admission. All applicants for the curriculum in directing and playwriting bases and for the curriculum in technology and design are required to present themselves for an interview. Auditions and interviews are held one Saturday during October, November, December, and January, and on

several other designated dates during the year. Each applicant must write to the Department of Theatre, University of Illinois at Urbana-Champaign, 4-122 Krannert Center for the Performing Arts, Urbana, Illinois 61801, to make specific audition or interview arrangements.

The Department of Theatre offers a four-year curriculum leading to the degree of Bachelor of Fine Arts in Theatre with majors in three areas: acting, bases of directing and playwriting, and technology and design. These provide basic knowledge and training for the student who seeks to qualify as a technician and for the student who wishes to prepare for apprenticeship in a professional theatre company.

The department is housed in the Krannert Center for the Performing Arts, and the theatres and shops of the center serve as laboratories for theatre students, who practice the arts of the theatre in a program of productions of plays, opera, and dance.

CURRICULUM IN THEATRE

For the degree of Bachelor of Fine Arts in Theatre

A minimum of 128 hours of credit is required for the degree.

Acting Major

Sp. Com. 177, 178, and Engl. 102 may not be presented in fulfillment of the general education requirement in humanities.

FIRST YEAR — FIRST SEMESTER	HOURS
Theat. 100 — Practicum I	3
Theat. 101 — Modern Forms	4
Theat. 171 — Speech-Fundamentals	2
Theat. 174 — Movement Improvisation	2
Music 100 — Theory[1]	2
Rhet. 105 or 108 — Composition	4
Total	17

SECOND SEMESTER	HOURS
Theat. 100 — Practicum I	3
Theat. 102 — Contemporary Forms[2]	3
Theat. 121 — Scenecraft	2
Theat. 172 — Speech-Dialogue	2
P.E. 154 — Foil Fencing	1
Art 116 — Masterpieces of Art	2
Elective or professional elective	2
Total	15

SECOND YEAR

Theat. 100 — Practicum I	3
Theat. 103 — Classical and Medieval Forms	3
Theat. 131 — Light and Sound	3
Theat. 141 — Makeup I	2
Theat. 173 — Speech-Dialects	2
Humanities sequence	3
Total	16

Theat. 100 — Practicum I	3
Theat. 104 — Sixteenth and Seventeenth Century Forms	3
Theat. 175 — Movement-Techniques	2
Humanities sequence	3
Music 165 — Class Instruction in Voice[3]	2
Elective	2
Total	15

THIRD YEAR

Theat. 105 — Seventeenth and Eighteenth Century Forms	3
Theat. 142 — Makeup II	2
Theat. 176 — Acting-Characterization	3
Theat. 300 — Practicum II	3
H. Ec. 285 — History of Costume	2
Dance 101 — Beginning Modern I	1
Social science sequence	3
Total	17

Theat. 271 — Acting-Studio I	3
Theat. 281 — Directing I	3
Theat. 300 — Practicum II	3
Music 115 — Introduction to Opera	2
Dance 102 — Beginning Modern II	1
Social science sequence	3
Elective	2
Total	17

[1] Music 181 — Voice may be substituted by students qualified by audition.
[2] Theat. 263 — Theatre of the Black Experience may be substituted.
[3] Professional elective may be substituted by students qualified by audition for Music 181 — Voice.

FOURTH YEAR

Theat. 272 — Acting-Period Styles 3
Theat. 280 — Dramatic Writing and Structure 3
Theat. 300 — Practicum II 3
Elective or professional elective 3
Natural science sequence 3
Total 15

Theat. 241 — Costume Design 3
Theat. 300 — Practicum II 3
Theat. 371 — Acting-Studio II 3
Natural science sequence 3
Electives 4
Total 16

Directing and Playwriting Bases Major

The general studies requirement in humanities is fulfilled by Engl. 101 and 103.

FIRST YEAR FIRST SEMESTER	HOURS
Theat. 100 — Practicum I	3
Theat. 101 — Modern Forms	4
Theat. 171 — Speech-Fundamentals	2
Theat. 174 — Movement-Improvisation	2
Music 100 — Theory[1]	2
Rhet. 105 or 108 — Composition	4
Total	17

SECOND SEMESTER	HOURS
Theat. 100 — Practicum I	3
Theat. 102 — Contemporary Forms[2]	3
Theat. 121 — Scenecraft	2
Theat. 172 — Speech-Dialogue	2
Art 116 — Masterpieces of Art	2
Elective or professional elective	2
Total	14

SECOND YEAR

Theat. 100 — Practicum I 3
Theat. 103 — Classical and Medieval Forms 3
Theat. 131 — Light and Sound 3
Theat. 141 — Makeup I 2
Theat. 173 — Speech-Dialects 2
Engl. 101 — Introduction to Poetry 3
Total 16

Theat. 100 — Practicum I 3
Theat. 104 — Sixteenth and Seventeenth Century Forms 3
Theat. 140 — Costume Construction 2
Theat. 175 — Movement-Techniques 2
Engl. 103 — Introduction to Fiction 3
Music 165 — Class Instruction in Voice[3] ..2
Total 15

THIRD YEAR

Theat. 105 — Seventeenth and Eighteenth Century Forms 3
Theat. 176 — Acting-Characterization 3
Theat. 300 — Practicum II 3
H. Ec. 285 — History of Costume 2
Social science sequence 3
Elective 2
Total 16

Theat. 280 — Dramatic Writing and Structure 3
Theat. 281 — Directing I 3
Theat. 300 — Practicum II 3
Music 115 — Introduction to Opera 2
Social science sequence 3
Elective 3
Total 17

FOURTH YEAR

Theat. 222 — Scene Design I 3
Theat. 272 — Acting-Period Styles 3
Theat. 300 — Practicum II 3
Natural science sequence 3
Electives 4
Total 16

Theat. 241 — Costume Design 3
Theat. 300 — Practicum II 3
Theat. 381 — Directing II 3
Natural science sequence 3
Electives 5
Total 17

[1] Music 181 — Voice may be substituted by students qualified by audition.
[2] Theat. 263 — Theatre of the Black Experience may be substituted.
[3] Professional elective may be substituted by students qualified by audition for Music 181 — Voice.

Technology and Design Major

With options in scenery and in costume. The general education requirement in humanities is fulfilled by Art 111 and 112 or Arch. 211 and 212.

FIRST YEAR FIRST SEMESTER	HOURS
Theat. 100 — Practicum I	2
Theat. 101 — Modern Forms	4
Theat. 121 — Scenecraft	2
Art 117 — Drawing I	3
Art 119 — Design I	3
Rhet. 105 or 108 — Composition	4
Total	18

SECOND SEMESTER	HOURS
Theat. 100 — Practicum I	2
Theat. 102 — Contemporary Forms[1]	3
Art 118 — Drawing II	3
Art 120 — Design II	3
Electives	3
Electives or professional electives	2
Total	16

SECOND YEAR	
Theat. 100 — Practicum I	2
Theat. 103 — Classical and Medieval Forms	3
Theat. 111 — Material and Processes: Textiles[2]	2
Theat. 131 — Light and Sound	3
Art 121 — Drawing Theory	2
Natural science sequence	3
Total	15

Theat. 100 — Practicum I	2
Theat. 104 — Sixteenth and Seventeenth Century Forms	3
Theat. 112 — Materials and Processes: Wood, Metal	2
Theat. 170 — Fundamentals of Acting	3
Art 122 — Drawing Theory	2
Natural science sequence	3
Total	15

THIRD YEAR	
Theat. 105 — Seventeenth and Eighteenth Century Forms	3
Theat. 220 — Advanced Scenecraft[3]	2
Theat. 300 — Practicum II	2
Art 111 — Introduction to Ancient and Medieval Art[5]	4
Art 201 — Watercolor I	2
H. Ec. 285 — History of Costume[4]	2
Social science sequence	3
Total	16

Theat. 113 — Materials and Processes: Paper, Plastics	2
Theat. 140 — Costume Construction	2
Theat. 141 — Makeup I[4]	2
Theat. 300 — Practicum II	2
Art 112 — Introduction to Renaissance and Modern Art[6]	4
Social science sequence	3
Elective[4]	1
Elective[3]	3
Total	16

FOURTH YEAR	
Theat. 222 — Scene Design I	3
Theat. 281 — Directing I	3
Theat. 300 — Practicum II	3
Theat. 330 — Photoprojection Techniques[3]	2
Advanced art history	3
Elective[4]	4
Elective[3]	2
Total	16

Theat. 221 — Advanced Scenery Painting[3]	2
Theat. 231 — Lighting Design	3
Theat. 241 — Costume Design	3
Theat. 242 — Costume Accessories[4]	2
Theat. 300 — Practicum II	3
Theat. 310 — Theatre Planning and Programming[3]	2
Theat. 320 — Scene Design II[3]	3
Electives[4]	5
Total	16

[1] Theat. 263 — Theatre of the Black Experience may be substituted.
[2] H. Ec. 183 — Consumer Textiles may be substituted.
[3] Scenery option.
[4] Costume option.
[5] Arch. 211 — Introduction to Ancient and Medieval Architecture (3 hours) and elective or professional elective (1 hour) may be substituted.
[6] Arch. 212 — Introduction to Renaissance and Modern Architecture (3 hours) and elective or professional elective (1 hour) may be substituted.

Department of Urban and Regional Planning

The Department of Urban and Regional Planning offers an undergraduate curriculum leading to the Bachelor of Urban Planning degree, as well as graduate study leading to the Master of Urban Planning degree.

The four-year undergraduate program is intended to prepare students both for careers in public service professions and for graduate work in urban planning or related fields. The curriculum combines general studies in the social and physical

sciences with more specific course work in urban studies, graphic and quantitative methods, and the theory and practice of urban and regional planning.

The department's administrative offices are at 909 West Nevada Street, Urbana, Illinois 61801. Classrooms and workshop space are located at 1001 West Nevada Street, Urbana, and 807 South Lincoln Avenue, Urbana. The City Planning and Landscape Architecture Library is in Mumford Hall.

The Bureau of Urban and Regional Planning Research, 909 West Nevada Street, provides a vehicle for the involvement of both faculty and students in a wide range of public policy-oriented research projects, continuing education programs, community service activities, and publication projects.

CURRICULUM IN URBAN AND REGIONAL PLANNING

For the degree of Bachelor of Urban Planning

A total of 124 hours is required for this degree.

GENERAL REQUIREMENTS	HOURS
Rhet. 105 or 108, or Sp. Com. 111, 112	4-6
One approved sequence of 6 hours in each of these areas: humanities, natural sciences, and social sciences	18
Introductory course in sociology	3
Introductory course in economics	3
Two courses in political science	6
Electives chosen from the approved college list	12-20
Total	48-50

GRAPHICS AND QUANTITATIVE METHODS	
Basic design and graphics: At least two courses in basic design and graphics or survey techniques such as Arch. 171, 172, Art 119, 120, 185, 186, Geog. 373, L.A. 122	6
Statistical analysis: Sociology, mathematics, computer science, economics, or other courses in statistics	6
Minimum total	12

URBAN STUDIES	
Additional professional elective courses as approved by departmental adviser. Suggested urban studies courses include Anth. 174, 369, 374; Arch. 317, 323, 379; C.E. 230, 240, 333; Econ. 360; Fin. 364, 365; Geog. 378, 383, 384, 385; Pol. S. 305, 306, 353, 357, 361; Soc. 223, 225, 276, 360	18-24

URBAN AND REGIONAL PLANNING	
U.P. 171 — Planning of Cities and Regions	3
U.P. 236, 337, and 338 — Urban Planning Studio I, II, and III	17
U.P. 351 — History of Urban Planning, or U.P. 374 — Urban Planning Theory	3
U.P. 376 — Planning Analysis	3
U.P. 377 — Comprehensive Planning Procedure	4
U.P. 378 — Planning Legislation and Administration	3
Minimum total	33

URBAN AND REGIONAL PLANNING OPTIONAL COURSES	
U.P. 199 — Undergraduate Open Seminar	varies
U.P. 240 — Planning Internship, or U.P. 340 — Advocacy Field Work (may be substituted for one studio)	varies
U.P. 260 — Special Problems	varies
U.P. 380 — Survey of Regional Planning	3
U.P. 382 — Language and Thought of Urban Planning	3
U.P. 384 — Urban Design and Planning Methods	3
Minimum total	7

Note: A revised curriculum was under study as this catalog went to press. Please contact the Department of Urban and Regional Planning for requirements currently in effect.

COLLEGE OF LIBERAL ARTS AND SCIENCES

University of Illinois at Urbana-Champaign
270 Lincoln Hall
Urbana, IL 61801

The College of Liberal Arts and Sciences is the largest and third oldest college at the Urbana-Champaign campus, serving a diverse group of undergraduate students. The college is primarily and fundamentally a place for learning. The faculty is distinctive in its ability to transmit knowledge and in its commitment to extend the frontiers of knowledge through research. In keeping with its size and diversity, the college offers a wide variety of academic programs, giving the student breadth of learning and access to scholars of national and international reputation. The college offers academic programs leading to specialization in seventy-five fields of study. Superior students are encouraged to participate in departmental honors programs contributing to experience and exposure through inquiry into individual laboratory and library problems. Students who can benefit from a year's study in a foreign country may participate in a variety of year abroad programs.

Although the variety of programs and the multiplicity of courses offered by its units provide opportunities for needed specialization, the college also encourages growth both in basic educational skills and in general education. Several common requirements reflect these goals: fluency and facility in English; literacy in at least one foreign language; an understanding of the modes and systems of thought in the general areas of humanities, social sciences, and in physical and biological sciences. Because of the size and diversity of the student body, many options are available to the student to achieve these goals. Students are encouraged to seek advice from faculty, staff, and other resources, but ultimately students must accept responsibility for planning a coherent program of learning to satisfy their own academic goals, for preparing for occupational or professional future, and for developing the capacity to reach constructive conclusions through thoughtful deliberation.

DEPARTMENTS AND CURRICULA

The College of Liberal Arts and Sciences is divided into four general categories o departments which in many cases are under the organizational structure of schools The School of Life Sciences consists of the Departments of Botany, Entomology, Microbiology, Physiology and Biophysics, and the Provisional Departments of Ecology, Ethology, and Evolution, and of Genetics and Development, and it administers the interdepartmental concentration option in biology. The School of Humanities is composed of the Departments of Classics; English; French; Germanic Languages and Literatures; History; Linguistics; Philosophy; Slavic Languages and Literatures; Spanish, Italian, and Portuguese; Speech Communications; and the Programs in Comparative Literature and in Religious Studies. Departments in the social sciences are Anthropology, Economics, Geography, Political Science, Psychology, and Sociology. Departments in the physical sciences include the School of Chemical Sciences (Biochemistry, Chemical Engineering, and Chemistry), Astronomy, Geology, and Mathematics. The Department of Speech and Hearing Science is also included in the college.

The college's undergraduate academic programs are grouped into three categories: the sciences and letters curriculum, specialized curricular programs, and secondary teacher education programs.

The general curriculum is not a formal degree program. The general curriculum office serves as an advising center and college office for students who have not decided on a program of study. Individual advising, group orientation sessions, and printed materials describing fields of concentration, curricula, and career opportunities are some of the resources available to students through this office. Entering freshmen and continuing students with less than 45 semester hours may select the general curriculum and may remain in the program until they complete 56 academic hours. During this academic interim, all college policies and regulations apply to general curriculum students.

The sciences and letters curriculum includes the traditional nucleus of specializations in the biological sciences, humanities, physical sciences, and social sciences. In addition to the departmental courses prescribed for the field of concentration, students must fulfill the foreign language and general education requirements. Both these general requirements and the listing of departmental fields of concentration are described beginning on page 289. In addition this curriculum includes a special interdisciplinary concentration, Individual Plans of Study, and interdepartmental concentrations in humanities, Asian studies, religious studies, and Russian language and area studies.

Specialized curricula are distinct curricula which are offered for preprofessional or pregraduate preparation. These curricula include the teacher education curricula, which upon satisfactory completion, confer a bachelor's degree and the state certificate for teaching. Although many of the general college requirements are similar to those in the sciences and letters concentrations, in some cases requirements may vary. The preprofessional health curricula are not degree programs at the Urbana-Champaign campus, but rather are designed as programs of studies leading to admission candidacy into one of the health professions.

ADMISSION REQUIREMENTS

General admission requirements and procedures of the College of Liberal Arts and Sciences are outlined in the admissions section starting on page 23. These requirements were established to insure that all entering students are intellectually capable of completing degree programs successfully and of gaining the most value from the educational opportunities available.

Prospective freshmen should seek a broad preparation in their secondary school program and are strongly encouraged to include at least two years of algebra

and a year of plane geometry and four years of a foreign language. Successful completion of four years of a single foreign language in secondary school will satisfy the college foreign language degree requirement. Although mathematics is not a degree requirement, a solid foundation will assist a student in making the most of the educational opportunities here.

It is recommended that students continue to elect academic subjects during the last year in high school. Continued good study habits and intellectual exercise will help entering freshmen successfully through beginning college-level programs. All new freshmen are also urged to take the University of Illinois placement examinations to determine correct course placement and to attend the Advanced Enrollment Program during the summer. (See page 50.)

ADVISING

Academic advising can serve an important role in a student's education. The choice of a major field, the selection of individual courses, and the development of postgraduate goals, all of which can be aided substantially by advising, vitally affect the direction a person takes, both inside and outside the academic community. On a more personal level, a continuing and interested association with an individual faculty member can be particularly rewarding to a student on a campus of this size.

Students who have successfully completed at least 30 hours (who are presumed to have a basic understanding of the academic routines) may act as their own advisers in submitting a request for a program of courses and in adding or dropping courses. This arrangement is not intended in any way to discourage student consultation with an academic adviser; indeed, such consultation is strongly encouraged. Rather, the authority of the student to sign his own schedule card and change-of-program card should relieve advising contacts of their more mechanical and clerical aspects, enabling students and advisers to spend their time together in more substantial areas of discussion. Within this arrangement, however, it should be noted that most students following requirements for a field of concentration must obtain an adviser's approval for the courses to be submitted for their field requirements.

In addition to departmental faculty advisers, the dean's staff of the College of Liberal Arts and Sciences stands ready to assist students. Students with academic problems and those who are unable to obtain information from other sources are encouraged to use the services of the dean's staff.

SPECIAL OPPORTUNITIES

African Studies

Students in all colleges and schools of the University who desire a knowledge of African affairs and cultures are invited to consult, either directly or through their advisers, with the chairman and faculty associated with the program in order to develop course programs suited to their individual needs and objectives. This program is sponsored and administered by the African Studies Program.

Among the many opportunities offered by the program are instruction in African languages and culture, financial support to graduate students through the NDFL Fellowships, and field access to Africa.

Afro-American Academic Program

The primary purposes of the Afro-American academic unit are: 1) general instruction in the origins, histories, and cultures of Afro-American populations throughout the Americas; and 2) intensive study of specific periods, movements, and

other expressions of the African-American experience within several disciplines: anthropology, English, economics, history, political science, psychology, Spanish, and educational policy studies. An additional aspect of Afro-American studies currently being undertaken is the development of a research assistance program which will provide professional services to faculty and students engaged in academic work related to Afro-American materials. Students and faculty are also invited to consult with the chairman for the development of courses suited to the enhancement of Afro-American interests.

Latin American and Caribbean Studies

This program is sponsored by the Center for Latin American and Caribbean Studies. Students in technical and professional colleges and schools of the University who seek knowledge of Latin American affairs, culture, and languages are invited to consult with members of the teaching staff of the Latin American studies program, either directly or through their advisers, in order to develop programs suited to their individual needs.

Individual Plans of Study

Individual Plans of Study (IPS) is an experimental program in the science and letters curriculum. Students who qualify for IPS may design their own special curricula from University course offerings. Interested students should contact Individual Plans of Study office. See also page 311 for further description.

Prelaw Advising

The education of a lawyer begins long before he enters law school. Effective and satisfying pursuit of the profession may depend not only upon mastery of the scope and operation of the legal system, but also upon proficiency in verbal expression, comprehension of and ability to analyze complex subjects, understanding of the physical and social worlds in which we live, ability to associate and work with others, and disposition to accept and discharge responsibility. A law school cannot develop all these qualities in its students during three years of legal training. Thus good law schools everywhere require substantial prelegal study as a condition of admission to law study. This period of education before law school should be looked upon as a very important phase of one's preparation for a place in the legal profession and in society generally. A student should select his prelegal studies for maximum benefit rather than excessive regard for minimum requirements.

Because prior education in diverse fields may prove valuable to the law student and to the graduate lawyer, schools of law have no specific prelegal requirements. Students are advised, however, to consult the assistant dean for law advising concerning appropriate course offerings which can be advantageously pursued by individuals interested in a career in law. Certainly courses in literature, philosophy, logic and mathematics, the humanities, and the social sciences generally will promote creative and critical thinking, an understanding of human values and institutions, and the ability to express oneself in a coherent and convincing manner. These characteristics are the hallmark of the successful lawyer. The Association of American Law Schools has prepared *Law Study and Practice in the United States* (St. Paul, Minnesota: West Publishing Company) as a reference for prelaw students.

Study Abroad

LIBERAL ARTS STUDY ABROAD

The College of Liberal Arts and Sciences has established a special course (L.A.S. 299) which provides credit for foreign study. This course is open also to students who are enrolled in other colleges within the University. A student's program for study abroad must have prior approval from his major department, his college,

and the Study Abroad Office. Final determination of appropriate credit is made upon the student's completion of the work and after returning to campus.

The course grants from 0 to 15 semester hours of credit each semester and may be repeated to a maximum of 30 semester hours per academic year, or to a total of 36 semester hours including summer study.

Inquiries should be addressed to the Study Abroad Office, University of Illinois at Urbana-Champaign, 367 Illini Tower, Champaign, Illinois 61820.

STUDY ABROAD IN JAPAN

The University of Illinois at Urbana-Champaign is developing an academic year program of intensive study in Japan. It is projected that the program will be based on the campus of Konan University in Kobe. Interested students should write or contact the Center for Asian Studies, University of Illinois at Urbana-Champaign, 1208 West California Avenue, Urbana, Illinois 61801.

INTERCOLLEGIATE CENTER FOR CLASSICAL STUDIES IN ROME

The University of Illinois participates in the Intercollegiate Center for Classical Studies in Rome sponsored by Stanford University. The program consists of two terms, corresponding in general with an extended semester system. Instruction, educational field trips, vacations, and examinations are scheduled so that for each term the student completes the equivalent of two academic quarters of work. Students accepted for the fall term may either return on completion of that term or remain for the full academic year.

During each term the curriculum provides a balance of Greek readings, Latin readings, ancient history (Greek and Roman), ancient art, archaeology, and elementary Greek if students require it. The normal course load for each term is 18 semester hours.

To be eligible for admission an applicant must be a concentrator in classics or art history; have had at least one semester or two quarters of Greek; and should have a general grade average of B. The selection committee may make certain exceptions, and good students without Greek should apply.

The center is located in a villa containing classrooms, a library, and living accommodations for students and faculty. The cost of $1,700 per term includes travel to Rome from home or college, whichever is closer; tuition; room; board; the major cost of trips outside Rome; and ordinary medical services at the center.

Students accepted for this program register at their home campuses, and those holding scholarships having an actual cash value will retain them. Illinois state tuition scholarships are not available for this program. The center awards a limited number of scholarships based on need and academic record.

Undergraduate students are usually nominated to participate in the program during their junior year. Early application is essential since nominations to the managing committee are made at least 120 days before the opening of each session. Applications for admission and scholarships and additional information may be obtained from the Department of Classics, University of Illinois at Urbana-Champaign, 4072 Foreign Languages Building, Urbana, Illinois 61801.

YEAR ABROAD PROGRAM IN FRANCE

The University of Illinois sponsors a year abroad program in France which constitutes the equivalent of a year in residence on the American campus. The program consists of five weeks of language review and cultural orientation at the University of Grenoble, followed by eight months at the University of Paris. Students take courses in French language, literature, history, geography, art, political institutions, and other subjects of particular interest to each participant. All courses are taught by French professors. Enrollment is not limited to students whose area of specialization is in French, and students concentrating in other subjects who can meet entrance requirements are welcome. The program is open to sophomores, juniors, and seniors.

An applicant should have at least a 3.5 (A=5.0) University grade-point average and a 3.5 grade-point average in French. Prior to the year of participation in the program the student should have completed the following courses: one semester or two quarters of French literature (introduction, survey, century, or genre course), and a year of language courses beyond the customary two years of introductory French or its equivalent.

Students pay for transportation, living expenses, books, tuition, medical insurance, and a modest administrative fee. The total cost is comparable to the average expense incurred during the academic year on the campus at Urbana-Champaign. Fellowships, loans, and tuition and fees waivers are all applicable to the program.

Transfer students are eligible for admission but during the time of their participation they must be enrolled at the sponsoring institution.

The application deadline is March 1. Application forms and a detailed brochure are available from the Department of French, University of Illinois at Urbana-Champaign, 2090 Foreign Languages Building, Urbana, Illinois 61801.

STUDY OPPORTUNITIES IN AUSTRIA

The Department of Germanic Languages and Literatures sponsors a two-semester program at the Pädagogische Akademie, Baden, Austria. Students take courses in language, literature, education, and civilization at the Akademie and elective courses at either the Akademie in Baden or at an institution in Vienna. Thirty-two hours of residence credit are granted upon completion of the program.

Applicants should have at least a 3.75 (A=5.0) overall grade-point average, a 4.0 grade-point average in German, and language proficiency at the Ger. 212 level. Students in the curriculum preparatory to the teaching of German can fulfill several College of Education requirements in Baden. Qualified students in colleges other than the College of Liberal Arts and Sciences are encouraged to participate and to develop individual programs with the aid of their advisers. Transfer students are eligible for admission but must be enrolled at the University of Illinois during the time of their participation.

Special low-cost transatlantic travel arrangements are available. The cost of room and board at the Urbana-Champaign campus normally approximates the cost of both transatlantic travel and room and board at Baden. Beyond that, students pay only regular University of Illinois tuition and off-campus fees. Fellowships, loans, and tuition and fees waivers are applicable to the program. Detailed information about the program is available from the Department of Germanic Languages and Literatures, University of Illinois at Urbana-Champaign, 3072 Foreign Languages Building, Urbana, Illinois 61801.

RUSSIAN LANGUAGE STUDY AT LENINGRAD STATE UNIVERSITY

The University of Illinois is one of fourteen American colleges and universities which sponsors a cooperative Russian Language Program at Leningrad State University. The semester program lasts sixteen weeks with several weekend side trips, and the summer program provides three weeks of instruction and three weeks of travel.

Classes are conducted in Russian by the university faculty; the curriculum is largely devoted to the intensive study of language and literature. American students live in dormitories with Soviet students, eat in the university cafeteria, and participate in the student life of the university.

Most participants are students of language, but the program is open to students of literature, history, area studies, and other disciplines as well. Limited scholarship funds are provided by the University of Illinois. On occasion, the U.S. Office of Education has provided funds for the summer program, and scholarship funds for the semester program have been granted by the Ford Foundation.

Additional information and application forms are available from the Depart-

ment of Slavic Languages and Literatures, University of Illinois at Urbana-Champaign, 3092 Foreign Languages Building, Urbana, Illinois 61801.

SPANISH SUMMER PROGRAM IN MEXICO

The Committee on Institutional Cooperation, of which the University of Illinois is a member, sponsors an annual eight-week summer program of Spanish at the Universidad Ibero-Americana in Mexico City. It is intended primarily for students whose area of specialization is Spanish, but it is open to undergraduate students from other disciplines who have a demonstrated ability in the use of Spanish. Participants are expected to enroll in a full program of three basic courses for which they may receive 8 semester hours of credit which is acceptable as residence work toward the University of Illinois degree.

Each applicant must have the equivalent of a third-year college-level competence in Spanish, show a 4.0 (A=5.0) grade-point average in Spanish courses and be in good academic standing, and arrange for a letter of recommendation attesting to scholarship and language competence from a faculty member in his home department. Exceptional second-year students will also be considered under the above conditions.

The fee for the program is approximately $800 and includes one-way transportation to Mexico City, room and board, tuition, and certain scheduled excursions. Limited scholarship aid is available for some participants.

Completed applications must be received by the director of the program by mid-March. Further information may be obtained from the Department of Spanish, Italian, and Portuguese, University of Illinois at Urbana-Champaign, 4080 Foreign Languages Building, Urbana, Illinois 61801.

UNIVERSITY OF ILLINOIS YEAR ABROAD PROGRAM IN SPAIN: BARCELONA AND MADRID

The Urbana-Champaign and Chicago Circle campuses sponsor a year abroad program in Spain which is equivalent to two semesters of study in residence. Thirty semester hours of credit may be earned in this nine-month program which begins each year in September.

After an orientation session in Madrid, students complete two semesters of study at the University of Barcelona. The program is designed for juniors concentrating in Spanish or the teaching of Spanish, but seniors and well-qualified sophomores may also apply. Students studying other areas will be considered if their work would be enhanced by a year's study of language and literature. Highly qualified students from other institutions are also eligible to participate in this program. Students must have completed a fourth-semester course in Spanish or the equivalent and have at least a 4.0 (A=5.0) grade-point average in Spanish and a minimum overall grade-point average of 3.5 to be eligible for consideration.

The cost for each student is about $1,950, which includes round trip air fare, plus University of Illinois tuition and fees. The application deadline is February 15; additional information and application forms are available from the Department of Spanish, Italian, and Portuguese, University of Illinois at Urbana-Champaign, 4080 Foreign Languages Building, Urbana, Illinois 61801.

HONORS PROGRAMS

Dean's List

Placement on the Dean's List is awarded at the end of each semester to those persons who, on the basis of a minimum of nine traditionally graded hours of course work (excluding course work graded credit-no credit, satisfactory-unsatisfactory, excused, or deferred, and course work taken for graduate credit), are, in terms of their college grade-point average, in the upper 20 percent of their respective

classes. Students with work graded excused or deferred will not be considered for the Dean's List until traditional letter grades have been submitted for that work.

James Scholar Program in Liberal Arts and Sciences

The LAS James Scholar Program came into existence in the fall of 1973 when the campuswide James Scholar Program was transferred to the separate colleges. Liberal arts and sciences students who were James Scholars prior to August 1973 may continue under the old rules which require only that the student maintain a 4.25 cumulative grade-point average.

The requirements for the new James Scholar Program are more complex.

Entering freshmen who rank in the top third of their entering class as determined by selection index are called James Scholar Designates. They retain this designation for their entire freshman year and are urged to enroll in honors courses, freshman seminars, or other special academic opportunities, in consultation with the honors adviser in their department.

Students beyond their freshman year who, in the judgment of their academic adviser, have a "reasonable chance" of qualifying for college honors at graduation or of earning departmental distinction may be designated James Scholars. The designation is for one academic year and must be renewed each year. A student interested in being a James Scholar must apply to his or her department or curriculum office during the spring advance enrollment period and obtain an adviser's certification. It is important to note that students not originally chosen as James Scholar Designates may be considered for James Scholar status by the honors adviser in their department during the spring of their sophomore year. (Analogous rules apply to students who are in liberal arts and sciences programs that do not lead to a bachelor's degree on this campus.)

The requirements for departmental distinction and college honors at graduation are summarized below. Further information is available from the LAS honors dean's office and through departmental and curricular offices.

Honors at Graduation

College honors at graduation are awarded on the basis of one of the following: successful completion of 25 hours of honors courses (or of work on honors learning agreements); or successful completion of 50 hours of 200- and 300-level course work; or satisfaction of the requirements for departmental distinction. Provided that one of the foregoing curricular tests is satisfied, the award of college honors is made according to the following ranges: *Cum laude* if the college grade-point average places a student in the top 12 percent of the graduating class but not in the top 7 percent; *Magna cum laude* if the college grade-point average places a student in the top 7 percent of the graduating class but not in the top 3 percent; and *Summa cum laude* if the college grade-point average places a student in the top 3 percent of the graduating class.

Departmental Distinction

Any student who has shown exceptional competence in one or more areas of study may be awarded distinction in the area(s) by his department or curriculum. Criteria for awarding distinction are established by the department or curriculum concerned.

In addition to meeting the scholastic requirements and the minimum requirements for his concentration, a student graduating with departmental distinction normally satisfies at least one of the following requirements: he must present an acceptable thesis, or he must pass a comprehensive examination prepared by the major department or other competent body, or he must pursue a special course of study, of at least 4 semester hours, approved by the major department. The hours for this

special course of study are over and above the minimum number of hours required for the field of concentration.

Candidates for the degree with distinction must register their candidacy with their adviser, preferably not later than the beginning of the junior year. The degree with Distinction, High Distinction, or Highest Distinction is recommended by the department on the basis of the quality of the work done. For High or Highest Distinction, the thesis, comprehensive examination, or special course of study must give evidence of exceptional ability. Students may obtain information about requirements from the departmental and curriculum advisers.

Distinction in Teacher Education Curricula

A student who has completed a curriculum in teacher education may be recommended for distinction in the teaching of his area of specialization if he has shown superior ability in that area.

The degree with Distinction, High Distinction, or Highest Distinction is awarded on the basis of the general scholastic average and of the average of courses in his area of specialization, on the recommendation of the area of specialization committee, and on any additional requirements imposed by that committee. For High and Highest Distinction, the candidate should give evidence of exceptional ability in his course in practice teaching. Information about requirements may be obtained from the adviser in the area of specialization.

Phi Beta Kappa

Eligibility for election to Phi Beta Kappa is determined on the basis of high academic achievement. Although no one is elected with a grade-point average less than 4.5 (A=5.0), the minimum average varies for each election and for each semester in school, due to standards established by the national United Chapters. Fulfillment of a broad liberal arts education is considered a prerequisite for election: this is interpreted to include completion of courses in the humanities, social sciences, and physical and biological sciences (with at least one laboratory science), and a fourth-semester proficiency in a foreign language.

Elections are held in each regular semester and each student is considered on four occasions: after 75, 90, and 105 hours, and after graduation. Transfer students are eligible only after completing 105 hours, of which 45 must have been earned in residence at the Urbana-Champaign campus.

As standards are subject to change in detail and may go beyond the courses required for particular curricula, students interested in this honor should contact the chapter secretary for details.

Awards

Elliott Ritchie Alexander Award. A book of the student's choice, with inscription of that student's name on a trophy which is on permanent display, is awarded each year to the student in chemistry or chemical engineering who in his first two years at the University has attained the highest scholastic average.

Alpha Chi Sigma Plaque. Zeta chapter of Alpha Chi Sigma, chemical professional fraternity, each year recognizes the freshman man who attains the highest scholastic average for his first semester of work in the curriculum in chemistry or chemical engineering. The selectee's name is engraved on a plaque displayed in the Chemistry Library.

American Institute of Chemical Engineers Award. This award, which includes a certificate, a two-year subscription to the *AIChE Journal*, and a pin, is presented to the chemical engineering student who has attained the highest grade-point average during his freshman and sophomore years.

American Institute of Chemists Award. Two certificates are awarded by the Chicago chapter of the American Institute of Chemists each year to the graduating seniors in chemistry and chemical engineering who are most outstanding in scholarship, personal integrity, and leadership.

Martha Belle Barrett Prizes in History. Two awards of $100 each are made annually. One goes to the student with the highest grade average in history courses and the other is awarded to the senior who writes the best honors thesis under the supervision of a member of the Department of History. The winners of the awards are selected by the Department of History.

Chemical Rubber Company Achievement Award. A copy of the *Handbook of Chemistry and Physics* is presented each year to the outstanding student in freshman chemistry.

Dante Prize. The Dante Society of America offers an annual prize of $100 for the best essay on a subject related to the life or works of Dante written by a student in any college or university in America, or by anyone who has graduated from such a college or university within the last three years. Essays may be left at the office of the Department of Spanish, Italian, and Portuguese, or sent to the Dante Society of America, Widener Library, Harvard University, Cambridge, Massachusetts 02138. They must reach the society by May 1. Inquiries concerning this prize may be made at the department office or sent to the Dante society.

Donald W. Doerscher Memorial Award. This award is made annually to the senior in the College of Liberal Arts and Sciences who has consistently done the most outstanding work in the field of philosophy. The winner of this award is selected by the Department of Philosophy, or a faculty committee acting for the department.

Reynold Clayton Fuson Award. A substantial award is given to the student in chemistry or chemical engineering, who, through the first semester of his senior year, has made the most outstanding academic improvement.

Geology Alumni Association Senior Award. A Brunton compass is awarded each year to the graduating senior in geology who is most outstanding in scholarship.

Algernon Dewaters Gorman Prize. This prize is awarded at the June commencement every third year to the student in chemistry or chemical engineering with junior standing who has the highest grade-point average, provided he has earned not less than 25 hours credit in chemistry or chemical engineering. The average is based on all courses taken on this campus exclusive of physical education and military.

Iota Sigma Pi Prize. A cash prize of $20 is awarded each year by the honorary chemical sorority, Iota Sigma Pi, to the woman in the senior class who has the highest scholastic average in her University work with chemistry as her major subject.

Mimi Jehle Award. An annual cash prize is presented each year to the outstanding student completing the curriculum for the degree of Bachelor of Arts in the Teaching of German. Selection is made on the basis of overall scholastic average and performance in the educational practice course.

Kendall Award. A monetary award is given each year to a student in chemistry or chemical engineering who is a member of Phi Lambda Upsilon and shows the greatest promise in his chosen field.

Agnes Sloan Larson Award. Substantial monetary awards are given at the beginning of the sophomore year to students in chemistry or chemical engineering who compiled the most outstanding records as freshmen.

Werner Marx Award. A book prize is given annually to an undergraduate who has demonstrated excellence and creativity in the study of German language and literature.

Merck Award. Two copies of the *Merck Index* are presented each year, one to an outstanding senior in the chemistry curriculum and one to an outstanding senior in the chemical engineering curriculum.

Phi Beta Kappa Scholarship. The University of Illinois chapter of Phi Beta Kappa awards scholarships of $100 annually to members of the junior class of the College of Liberal Arts and Sciences, selected on the basis of general merit. The scholarship is available to the winner during his senior year at the University of Illinois.

Phi Lambda Upsilon Cup. Alpha chapter of Phi Lambda Upsilon, honorary chemical society, awards a cup annually to the sophomore man who has the highest scholastic average among the students in the curricula of chemistry and chemical engineering. The cup is on display in the main hall of the Chemistry Annex.

J. Kerker Quinn Awards. Several substantial annual awards established by the late Professor J. Kerker Quinn for undergraduate students specializing in creative writing in the English department, with preference given to students with creative writing ability regardless of their financial need. Awarded only by nomination of candidates and administered by judges acting for the Department of English.

Worth Huff Rodebush Award. A substantial monetary award is given in the second semester each year to the most able senior who has demonstrated his intention to make a career of chemistry or chemical engineering.

Degree Programs

CURRICULUM IN SCIENCES AND LETTERS

For the degree of Bachelor of Arts or Bachelor of Science in Liberal Arts and Sciences

This curriculum leads to the degrees of Bachelor of Arts and Bachelor of Science. Concentrators in the physical sciences (which include mathematics), the biological sciences, psychology, and social welfare may receive the degree of Bachelor of Science. The degree desired must be indicated on the degree card at the time of registration for the last semester of work.

Graduation Requirements

Although each student has a faculty adviser, the student is responsible for meeting the requirements for graduation. Therefore, each student should familiarize himself with the requirements listed below and should refer to them each time he plans his program.

A total of 120 semester hours, excluding more than 4 hours of basic physical education and excluding military training, is required for graduation. A student must spend either the first three years, earning not less than 90 semester hours, or the last year, earning not less than 30 semester hours, in residence at the Urbana-Champaign campus uninterrupted by course work elsewhere. The hours must be applicable toward the degree sought. In addition, a transfer student in the sciences and letters curriculum must satisfy a residence requirement in his field of concentration, as described on page 291. For complete information about other requirements see the pages indicated below.

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Foreign Language Requirements

A knowledge of a foreign language equivalent to that resulting from four semesters of study of a foreign language commenced in college is required. Completion of four years of the same foreign language in high school also satisfies this requirement. Or

if a student has passed three semesters of a foreign language at the college level o three years in high school, he may complete the requirement by passing three se mesters of a second foreign language. Proficiency examinations are offered in those languages which are included in the curricula of the College of Liberal Arts and Sciences. Students transferring from other colleges may present in satisfaction of the language requirement two years (four semesters) of college credit in a language not offered at the University of Illinois.

Students planning to enter the Graduate College are advised to consult their department of concentration or the graduate school at which they plan to matriculate regarding applicable language requirements.

General Education

A fundamental role of the College of Liberal Arts and Sciences is found in its policy toward general education. In contrast to the largely occupational objectives of the professional college, the goals of this college embody breadth as well as depth of learning. In addition to achieving a high level of competency in a field of concentration, students are expected to acquire an understanding of the methods of inquiry in at least one field in the humanities, the social sciences, and the biological and physical sciences. Through this academic involvement in other fields of knowledge students should be able to place their specialized training into a broader context of learning and culture. Another purpose of the general education requirement is to provide an opportunity for students to investigate new areas of study which may foster new academic or occupational interests.

The College Council on General Education has approved a great variety of courses in the hope that students would elect appropriate sequences, especially at upper levels and thus challenge the notion that general education courses are those introductory offerings which must be put behind at the earliest possible time. In the view of the council, it is desirable to spread one's work in general education over a four-year period; if a student is capable of meeting the intellectual demands and prerequisites of a 200- or 300-level course, he may well find this work more stimulating and ultimately more satisfying than a beginning course.

The following regulations apply to the election of general education courses:

- All students in the sciences and letters curriculum must complete at least 6 hours of designated course work in one department, or in an especially approved sequence from different departments, in each of the following four areas: biological sciences, humanities, mathematics or physical sciences, and social sciences.
- A student may not use courses in his major area to satisfy the requirement in another area and a student may not ordinarily use courses from one department to satisfy the distributional requirements in more than one area.
- A student may not use courses ordinarily taken for fulfillment of the basic foreign language and rhetoric requirements to meet the general education requirement. Ordinarily, 199 courses may not be used to fulfill the general education requirement.
- Students should consult the *LAS Student Handbook* and departmental and college advisers for the current list of courses which may be used to satisfy the general education requirement.

Since 1972 students have been able to satisfy the requirements in general education by passing, at an appropriate level, the respective CLEP General Examination (i.e., those in humanities, social science and history, and in natural science). Credit hours have also been earned by successful students. As of December 22, 1975, students may no longer earn credit via the Natural Science General Examination although they may be given a waiver from the physical science and/or the biological science requirements by achieving specified scores. Credit and waiver may continue to be earned by successfully passing the humanities and the social science and history examinations.

Courses offered through the School of Life Sciences will qualify as general

education courses in the biological sciences areas. In addition, biologically related courses in several other departments (anthropology, geography, and psychology) may be used to satisfy the biological sciences requirement.

Courses in literature offered by the program in Asian studies, the classics, comparative literature, English, French, Germanic and Slavic languages, Spanish, Italian, and Portuguese will meet the humanities requirement. Certain other courses in anthropology, architecture, art, history, humanities, linguistics, philosophy, religious studies, speech communication, and theatre will also meet the requirement.

Courses offered by the Departments of Astronomy, Biochemistry, Chemical Engineering, Chemistry, Geology, and Physics will meet the general education requirement in the physical sciences. Some courses offered by the Departments of Geography, Mathematics, and Philosophy will also meet the requirement in addition to some courses offered under the LAS rubric.

Generally, courses offered by the Departments of Anthropology, Economics, Geography, Political Science, Psychology, and Sociology will meet the requirement in the social sciences. Additionally, some courses in history, linguistics, and speech communication will meet the requirement.

Advanced Courses

At least 30 hours must be earned in courses numbered 200 or above.

Electives

Undergraduate Courses: An elective course in the sciences and letters curriculum is one that is *not* used in fulfillment of any of the minimum specific graduation requirements of the college: rhetoric, foreign language, general education, field of concentration (including cognate courses). A student following a *field of concentration* may use as electives:

1. Courses offered by the College of Liberal Arts and Sciences;
2. Courses offered by departments and schools in other colleges of the University which sponsor fields of concentration in LAS (that is, art — excluding applied art courses, computer science, economics, finance, music — excluding applied music courses, or physics) ; and
3. A maximum of 24 hours to be counted toward graduation of courses not included in (1) or (2).

A student following a major and minor should consult the *LAS Student Handbook* or the college or departmental office for restrictions on elective courses outside the college.

Graduate Courses. A student of high academic standing who is within 10 semester hours of his bachelor's degree may be given the privilege of electing courses in the Graduate College for graduate credit with the consent of the dean of that college; a student within 25 hours of his bachelor's degree may petition the Graduate College for permission to elect graduate courses for undergraduate credit. In either case, the student should have a 4.0 average or higher on courses taken beyond the sophomore level. Interested students should first consult the College of Liberal Arts and Sciences.

Fields of Concentration

A change in the concept of a student's in-depth study of an academic discipline within the curriculum in sciences and letters was approved by the faculty of the College of Liberal Arts and Sciences in the spring of 1972. In place of the requirements in a major subject and minor subject(s), the faculty approved the concept of a field of concentration, including both core courses in the subject itself and cognate courses in supporting subjects. The intent in adopting the concept of a field of concentration was twofold: 1) to provide a vehicle through which inter-

disciplinary studies could more easily be effected than is possible with departmentally oriented majors and minors, and 2) to insure that the related work (other than core courses) is an integral part of the focus of a student's program.

A change of such magnitude, affecting graduation requirements for students in every department of the college, obviously requires considerable time to implement. For this reason, the requirements for fields of concentration, rather than those for majors and minors, will apply to those students who matriculated at a college in August 1973 or later. Students who matriculated prior to August 1973 may complete the requirements for the major and minor, or may instead elect to follow the requirements for a field of concentration if it does not extend their enrollment beyond eight semesters.

It should be emphasized that the change from majors and minors to fields of concentration applies *only* to those academic programs within the sciences and letters curriculum. Students in specialized curricula, including teacher education curricula, are not affected by the change, and should continue to pursue the stated requirements of their program.

A field of concentration will normally consist of 40 to 50 hours of course work designated by a department and approved by the faculty of the college. Of these hours approximately 12 to 20 hours will consist of cognate course work. Ordinarily, at least one-half of the course work for the field of concentration should be chosen from courses numbered 200 or above. The changes in the specific course requirements for fields of concentration vary among departments. In a few cases, there are no changes; in some cases the changes are minimal. In most instances, the field of concentration represents marked departures from the preceding major, either by requiring courses not previously required, or by providing options not previously available.

Each student in the curriculum in sciences and letters should select the field of concentration he intends to pursue not later than the end of the fourth semester. The introduction of fields of concentration has prompted many academic departments to provide more flexibility to their students in the selection of courses within the field. Many departments allow a student to elect some of his courses with the approval of his academic adviser. Most students will therefore have to consult with an adviser, and submit a list of adviser-approved courses prior to the beginning of their sixth semester. Note that this procedure is an exception to the general college policy that a student beyond freshman level may act as his own adviser.

The following general regulations apply to students pursuing a field of concentration in the sciences and letters curriculum:

- A student shall earn an overall average of 3.0 or higher in his field of concentration, including both core courses and cognate courses, in order to graduate.
- A student may not use any course taken under the credit-no credit option to satisfy the minimum requirements of his field of concentration. The phrase "minimum requirements" refers to cognate work as well as core courses.
- A transfer student shall normally complete on this campus at least 12 semester hours of advanced-level core course work (course work within the department) in his field of concentration.
- Students matriculating in August 1973 or after must satisfy the requirements of a field of concentration rather than those of majors and minors.

Majors and Minors

The college is in the process of completing the conversion of majors and minors in the sciences and letters curriculum to fields of concentration. Only those students who matriculated at some college before August 1973 may complete the requirements for majors and minors. Students with general questions concerning majors and minors should contact the college office, Room 270, Lincoln Hall. Specific requirements of departmental majors and minors may be obtained from the department offices.

SCIENCES AND LETTERS CONCENTRATIONS

Actuarial Science

This concentration is sponsored by the Department of Mathematics. See page 317.

American Civilization

This program is now part of the humanities field of concentration. See page 309.

Anthropology

A total of 40 hours including 28 hours within anthropology and 12 cognate hours. The hours in anthropology must include either Anth. 110 or the 102-103 sequence, but not both. At least 12 hours in anthropology and at least 6 of the cognate hours must be in advanced courses (200-level or above). Students are strongly urged to take Anth. 220, 230, 240, and 200 or 300. A balance among courses in the subdisciplines (archeology, biological anthropology, cultural and social anthropology, and linguistics) is highly recommended. Students shall take all of their cognate hours either within the School of Humanities, or within the School of Life Sciences, or within any one of the following departments: economics, geography, geology, mathematics, psychology, political science, or sociology. All students should discuss their selection of anthropology and cognate courses with a departmental adviser. Modifications of these requirements can be worked out between the student and adviser and, with the approval of the head of the department, should be submitted to the college office to establish individual requirements for a field of concentration in anthropology.

Departmental Distinction: For graduation with Distinction, 32 hours in anthropology with a grade-point average of 4.4 (A = 5.0) or better including at least 4 hours credit for Anth. 291 or 293. For graduation with High or Highest Distinction, the same minimum requirements, plus a senior honors thesis (written for Anth. 293) or an equivalent project to be submitted to the Department of Anthropology by the first day of the month preceding the month of graduation. A departmental honors board will assign Distinction, High Distinction, or Highest Distinction based on grade-point average, quality of the honors thesis or project, and (at its option) performance on written or oral comprehensive examinations. Students apply for degrees with Distinction by registering in Anth. 291 or 293; they apply for degrees with High or Highest Distinction by submitting the senior honors thesis or equivalent project. Those students who do not qualify academically, but who feel they are worthy of departmental distinction for other reasons, may, with the approval of a faculty sponsor, petition the head of the department for permission to submit a special thesis meeting College of Liberal Arts and Sciences and departmental requirements for distinction.

Art History

Students who wish to take a considerable number of studio courses as part of their concentration should enroll in the history of art option offered by the Department of Art and Design within the College of Fine and Applied Arts.

Like the other humanities, history of art as an undergraduate area of concentration offers an enrichment of and a preparation for life, rather than training for a specific occupation. The concentrator who goes on to graduate work can look forward primarily to becoming a teacher of the subject or a member of the staff of a museum.

The concentrator may elect to obtain either a comprehensive knowledge of the field or more intensive training in one of the eight areas which follow: African, Oceanic and Pre-Columbian; Ancient (ancient near East, Egypt, Greece, and Rome); Medieval; Renaissance; Baroque; Modern; Oriental (China, India, Japan,

and related cultures); or American. Architecture is considered to be an integral part of the visual arts for the purposes of concentration in history of art. In order to assure that flexibility within the area of concentration may not unintentionally lead to dissipation of effort, close contact between the student and adviser is considered essential.

Requirements: Art 111 and 112, and in addition at least 24 hours of advanced work in history of art, including not less than one course in four of the eight areas listed above. Courses in history of architecture, excluding Arch. 211 and 212, may be used with the approval of the adviser for as many as 12 advanced hours. At least 15 hours of advanced work must be selected with the approval of the adviser from among cognate courses listed under the different areas. German or French is strongly recommended to satisfy the requirement in foreign language. Where highly significant factors suggest the taking of courses other than those recommended, the adviser may approve such substitution.

Comprehensive Option: Some advanced work should be taken in as many of the different areas as possible. Among cognates, at least 3 hours must be in history or humanities. Cognate courses: Anth. 260, 316, 372; Comm. 307, 308, 319; Dance 340; Hist. 323, 324; Human. 215, 216; L.A. 214; Phil. 230, 323, 324, 332, 361; Rel. St. 230, 362; Music 213, 214, 316; Sp. Com. 307, 361, 362; Engl. 201, 273, 274, 275, 364, 365, 367, 375, 382, 387; Rhet. 227; Soc. 229; Span. 332; U.P. 351.

Specialization Options: It is assumed that the student will take as many courses as he can in his special area of interest in history of art and history of architecture. Hence, only the recommended cognate courses are listed. Where there may be but few specialized courses offered in cognate fields, appropriate courses of wider spread included under the comprehensive program may be substituted in consultation with an adviser.

1. African, Oceanic, and Pre-Columbian.
   Anth. 220, 222, 315, 316, 348, 353, 358, 360, 363, 367, 372, 375, 376, 381; Hist. 215, 216, 386; Ling. 320; Music 316, 317; Phil. 230; Sp. Com. 346.
2. Ancient.
   Cl. Arc. 331, 332, 335, 336; Cl. Civ. 221, 222, 301, 302, 332; Grk. 201, 202, 301, 302, 371, 381-386, 391; Hist. 381-384; Lat. 201-204, 381-386, 391; Phil. 303, 309, 310; Rel. St. 213.
3. Medieval.
   C. Lit. 313; Engl. 202, 311, 312; Fr. 335; Ger. 204, 300; Grk. 371; Hist. 203, 204, 304, 332, 347; Ital. 222, 311, 312, 313; Lat. 360, 361; Music 310; Phil. 304; Rel. St. 201, 202, 340, 360, 371; Span. 309; Sp. Com. 361; Theat. 361.
4. Renaissance.
   Cl. Civ. 221, 222, 301, 302, 332; Engl. 204, 205, 315-319, 321, 322; Fr. 220, 335; Ger. 301; Grk. 371, 381, 382, 384, 386; Hist. 305, 306, 315, 320, 323, 333; Ital. 222; Lat. 201-204, 381-383, 386; Music 311; Phil. 317; Rel. St. 306; Sp. Com. 362.
5. Baroque.
   Cl. Civ. 221, 222, 301, 302, 332; Dance 340; Engl. 204-206, 274, 315-329, 382; Fr. 223-228, 255, 335; Ger. 301; Hist. 306, 309, 315, 321, 323, 325, 329, 333, 334; Grk. 371, 381, 382, 384, 386; Ital. 221; Lat. 201-204, 381-383, 386; Music 312, 313; Phil. 306 (or 307, 308), 312; Port. 221; Rel. St. 306; Span. 240, 311, 314; Sp. Com. 362; Theat. 362.
6. Modern (nineteenth and twentieth centuries).
   Comm. 217, 220, 251; Dance 341; Engl. 207, 240-248, 255, 256, 259, 260, 273, 274, 275, 331, 333, 334, 335, 341, 342, 343, 346, 347, 350, 351, 366, 383; Fr. 230-234, 256, 336, 341, 342, 355, 356; Ger. 210, 270, 350-353; Ital. 321, 322; Hist. 211, 212, 310-314, 316, 322, 324, 326-328, 330, 335, 336, 340, 341, 342; Music 314, 315; Phil. 311-316, 318, 340, 341, 345, 363; Rel. St. 231, 369; Russ.

315, 317, 321-325, 335, 337; Slav. 319; Scan. 266, 362; Soc. 221, 251; Span. 241, 305-308; Sp. Com. 207, 213, 307, 308, 319, 352; Theat. 352.

7. Oriental.
Anth. 382, 383, 384; As. St. 295, 303; Chin. 207-210, 305-308, 311, 312; Hist. 387, 390, 391, 392, 394, 395, 396, 398; Japan. 205, 206, 310; Music 317; Pers. 309; Phil. 369; Rel. St. 297, 328, 368, 387; Sansk. 309; Soc. 328. A student who has decided to make the history of oriental art his major study in undergraduate and graduate work would be well advised to satisfy the language requirement with Chinese or Japanese instead of a modern European language.

8. American.
Dance 341; Engl. 249, 255, 256, 259, 260, 346, 347, 350, 351, 362, 368; Hist. 260, 261, 262, 271, 350-364, 367, 371-373; Music 334, 335; Phil. 313; Pol. S. 317, 326, 351, 397; Sp. Com. 312, 366; Theat. 366.

Asian Studies

This program is sponsored by the Center for Asian Studies. The program of studies permits either a single geographical regional focus (East Asia — China and/or Japan; South Asia; Southeast Asia; the Middle East) in an integrated language and area, or general area program; or a language-literature-linguistics specialization; or a program of cross-cultural studies. While individual programs of study must be approved by the director of the center or by an adviser designated by him, the following general information and statements of requirements will assist students in planning programs of study.

The area of concentration in Asian studies consists of a minimum of 40 semester hours of course work selected from three of four discipline distribution categories: humanities, social sciences, language-literature-linguistics, related courses and fields. A complete list of approved courses is available from the center. Students must designate one of these categories as a primary concentration with a minimum of 20 hours of course work, a secondary category with a minimum of 12 hours of course work, and a tertiary category with a minimum of 8 hours of course work. The category "related courses and fields" may not be offered as a primary concentration. Courses offered within each category should be distributed over several disciplines. Students selecting language-literature-lingustics as their primary discipline-distribution may not include the first-year level of their language of specialization in the 20 hour minimum.

Astronomy

The field of concentration in astronomy demands both a broad and in-depth exploration into astronomy and allied disciplines, rather than a focusing on one relatively limited area of the subject. Specific programs of study for individual students must be designed and periodically updated through mutual discussions between students and their academic advisers. Students should note sequential prerequisites for courses.

Requirements: The basic concentration consists of a minimum of 46 hours distributed as follows:

1. Astr. 101 and 102, or 210;
2. Math. 120, 130 or 131, and 140 or 141;
3. Phycs. 106, 107, and 108;
4. A minimum of 18 hours in 300-level astronomy and physics courses, of which at least 12 hours must be in astronomy courses.

Additional courses recommended for concentrators, especially those intending to pursue graduate study in astronomy, include: Math. 343, 345; Phycs. 321 and 322, 341 and 342, 360, 362, and 386 and 387.

Biology

This program is now a part of the life sciences field of concentration. See page 312.

Botany

This program is now a part of the life sciences field of concentration. See page 312.

Chemical Sciences

(Including Biochemistry and Chemistry)

BIOCHEMISTRY

Biochemistry is an advanced interdisciplinary science requiring training in chemistry and life sciences. Therefore, students planning to concentrate in biochemistry take an initial course program similar to the chemistry curriculum or honors biology sequence. Such beginning training assures adequate prerequisites to meet the advanced course work requirements of biochemistry. Important prerequisites include the basic courses in mathematics (through calculus) and physics (through Phycs. 102, or preferably 108).

Requirements: Bioch. 352, 353, and 355; organic chemistry through Chem. 336; and one year of physical chemistry (Chem. 342 and 344, or alternately, Chem. 340 and 346, or Chem. 340 and Biochem. 351). Mathematics through Math. 140, 141, or 145; physics through Phycs. 102 or 108; and two 300-level courses in the life sciences.

Departmental Distinction: Students in biochemistry registered in Bioch. 292 — Senior Thesis become candidates for graduation with departmental distinction.

CHEMISTRY

Students desiring to specialize in chemistry have available two alternatives: 1) the chemistry curriculum, and 2) chemistry concentration in the sciences and letters curriculum.

The chemistry curriculum is a specialized program intended for those planning a career in chemistry. The requirements are described in detail on page 330.

Chemistry concentration in the sciences and letters curriculum ordinarily parallels other college curricula. It can be used by a student planning a career in chemistry or by a student wishing to obtain a background in chemistry for use in a related field. It is often more desirable for a student changing his field to chemistry sometime after beginning his college work. A chemistry concentrator planning a career in chemistry is advised to take most of the courses required in the chemistry curriculum.

This field of concentration requires not less than 20 hours in chemistry and biochemistry, excluding Chem. 100 through 110 and Chem. 199. There must be included Chem. 340 or 342 and two other 300-level courses, at least one of them outside physical chemistry. Mathematics through Math. 140, 141, or 145, and physics through Phycs. 102 or 108 must also be completed.

Departmental Distinction: Students in chemistry registered in Chem. 292 — Senior Thesis or Bioch. 292 — Senior Thesis become candidates for departmental distinction. The level of distinction to be recommended is determined by the quality of the special work done in addition to the requirement that the overall grade-point averages (exclusive of military training) of 4.0, 4.25, and 4.5 are required for the citations with Distinction, High Distinction, and Highest Distinction, respectively.

Sequence of Courses: Students in the curriculum in chemistry, concentrators in chemistry, and others who desire a thorough training in the fundamentals of chemistry and their applications to modern life should select courses from the following, usually in the sequence given: Chem. 107 and 109, 108 and 110, 136 and 181,

336, 342 and 383, 344 and 385, 315, and courses in biochemistry; chemical engineering; analytical, inorganic, organic, and physical chemistry. Students who do not meet the requirements of previous high school chemistry and the thorough mathematics background necessary for registration in Chem. 107 should register in Chem. 101 before taking the sequence Chem. 102, 104 (or 105-106), 122, 131, 134, and 336. Students in the College of Engineering (except ceramists, ceramic engineers, and those who wish to take Chem. 342) should register in Chem. 101, 102, 104 (or 105-106), and 122.

Students who wish to satisfy a limited chemistry requirement may register for the sequence Chem. 101, 102, 104 (or 105-106), 122, or 131 and 134.

Classics

Students concentrating in the classics must choose one of the options in classical civilization, Greek, or Latin, and take an additional 24 hours of cognate courses in the manner described below.

Classical Civilization Option: Twenty hours of classical civilization courses, excluding Cl. Civ. 100, but including Cl. Civ. 110, 112, 201, 202 and 6 hours of 300-level courses.

Note: Although a reading knowledge of Greek or Latin is not a prerequisite for the Classical Civilization Option, students selecting this option are strongly advised to satisfy the college foreign language requirements with one of these languages. Students wishing to pursue an academic career in classical studies are advised that a good reading knowledge of French, German, and Italian is necessary, and a strong background in history, linguistics, philosophy, literary theory, and criticism is highly desirable. Students interested in classical archaeology should also take appropriate courses in anthropology, art, and history as well as in the Greek and Latin languages.

Greek Option: Twenty-four hours of Greek including 6 hours of 300-level courses. Credit is not accepted for both Greek 101-102 and 111-112. No more than 12 hours of credit in New Testament Greek will be accepted from other institutions.

Latin Option: Twenty-four hours of Latin, excluding Latin 101, 102, and 280, and including 6 hours of 300-level courses.

Cognate Courses: Twenty-four hours distributed as follows:

1. Six hours from Hist. 181, 182, 381, 382, 383, 384.
2. Six hours from Arch. 211, 310; Art 217, 218, 301, 303, 304, 305; Cl. Arch. 331, 332, 335, 336.
3. Twelve hours from one or two of the following groups of courses with at least 6 hours in each group chosen.
   a. Classical civilization (not open to students electing the Classical Civilization Option) and classical archaeology;
   b. Any 200- and 300-level Greek courses (not open to students electing the Greek Option);
   c. Any 200- and 300-level Latin courses (not open to students electing the Latin Option);
   d. Phil. 303, 309, 310; Pol. S. 393;
   e. Rel. St. 201, 202, 206, 210, 211, 340;
   f. Appropriate courses in comparative literature, English, history, humanities, or a modern foreign language;
   g. Linguistics.

Departmental Distinction: Distinction in Greek or Latin may be achieved by a student who satisfactorily completes 4 semester hours in Grk. 292 or 298, or Lat. 292 or 298 in addition to the requirements of the concentration in Greek or Latin. A student may be admitted to these courses by the approval of the departmental honors committee.

The level of distinction is determined by the department on the basis of the

thesis, but High Distinction is not awarded to students whose grade-point average for all courses in Greek or Latin is less than 4.5 (A = 5.0).

Note: Credit for New Testament Greek transferred from other institutions is not counted toward a concentration until after the satisfactory completion of Grk. 201 or 202, and then only to a possible maximum of 12 hours as the equivalent of Grk. 111-112 and 200, and 3 hours as the equivalent of one semester of Grk. 391.

Computer Science

MATHEMATICS AND COMPUTER SCIENCE

This field of concentration is sponsored by the Departments of Mathematics and Computer Science. It is designed to prepare students for professional or graduate work in mathematics and computer science. See also the curricula in computer engineering and computer science in the College of Engineering.

Requirements:

1. Required courses:
   a. Calculus through Math. 140 or Math. 141 or Math. 145.
   b. Math. 347, C.S. 121, C.S. 201, C.S./Math. 257.
2. At least one course from each of the following five lists:
   a. Math. 361, Math. 363.
   b. C.S./Math. 313, Math. 317, Math. 319.
   c. Math. 315, Math. 318, C.S./Math. 383.
   d. Math. 341, Math. 349.
   e. Math. 314, C.S./Math. 375, C.S./Math. 391.
3. At least three courses from the following list:
   C.S. 264, C.S. 281, C.S. 321, C.S. 323, C.S. 325, C.S./Math. 358, C.S./Math. 359, C.S./Math. 373.

Notes:

- Students who transfer into this field of concentration after having taken a 100-level computer science course other than C.S. 121 may, with the consent of the adviser, substitute this course for C.S. 121. All other students in this field of concentration must take C.S. 121.
- A student taking a cross-listed course in this field of concentration may designate it as either mathematics or computer science.
- Assuming no advance placement in calculus, and assuming that C.S. 121 is taken, this field of concentration totals at least 50 hours.

Distinction in Mathematics and Computer Science: A student who satisfies the following requirements may, upon recommendation of the Departments of Mathematics and Computer Science, be graduated with Distinction in mathematics and computer science: 1) satisfy the College of Liberal Arts and Sciences requirements for graduation; 2) complete the minimum requirement of the concentration in mathematics and computer science with a grade-point average of at least 4.25 (A = 5.0) in all mathematics and computer science courses; 3) complete 3 hours of additional courses chosen from C.S. 109, 209, 290, 311, 321, 323, 358, 359, 375, 385, 389, 391, 394, 397; 4) register his candidacy for distinction with his adviser no later than the end of his junior year.

Economics

Economics is the study of the problems caused by scarcity and how societies deal with these problems. While economics is a social science it also shares common interests with the business-oriented disciplines and increasingly uses the quantitative

approach relying on mathematics and statistics as important tools. The program outlined below attempts to combine a minimum of required courses with maximum flexibility.

Requirements: The field of concentration in economics requires a minimum of 46 hours distributed as follows:

1. At least 27 hours of economics courses, including
   a. Econ. 101.
   b. Econ. 171, or 172 and 173; 172 and 173 are strongly recommended.
   c. Econ. 300 and 301.
   d. Four additional economics courses excluding 199, 294, and 295.
2. Math. 124 and 134. Math. 141 (special section) and Math. 315 are strongly recommended.

   In place of the recommended sequence, students may elect one of the following:
   a. Math. 120 and 130; Math. 140 and 315 are recommended in addition.
   b. Math. 120 and 131; Math. 141 and 315 are recommended in addition.
   c. Math. 135 and 145; Math. 315 is recommended in addition.
3. At least 12 hours of cognate courses. The cognate work students take beyond the core program outlined above is determined by their choice of option within the field of concentration. There is a wide variety of possible options, so that it would not be practical to spell out all of them. Students may work out a field according to their interests with the consent of the director of undergraduate studies of the department.

Sample Programs: Several illustrative programs are shown below. They are only intended to give the student an example of the type of program that would be possible and by no means preclude the possibility of others. Each program is to include a minimum of 12 hours in one other discipline to give the student a thorough acquaintance with another area of inquiry.

1. Prelaw program.
   27 hours of economics; Accy. 201; Math. 124, 134; 18 hours of cognate courses, with 12 hours in one discipline chosen from Hist. 111, 112, 211, 212, Phil. 102, 103, Pol. S. 150, 151, 280, 321, Psych. 201, and Soc. 100, 151, 206, 275.
2. Business economics.
   27 hours of economics; Math. 124, 134, and 141 (special section); 18 hours of cognate courses including C.S. 105 and 15 hours from Accy. 201, B. Adm. 190, 200, 210, 389, and Fin. 254, 259.
3. Area emphasis.
   27 hours of economics; Math. 124, 134; 21 hours of cognate courses, with 12 hours in one discipline chosen from advanced language, anthropology, geography, history, political science, and sociology.
4. Government and the economy.
   27 hours of economics including Econ. 214, 388, 315; Math. 124, 134; 21 hours of cognate courses including B. Adm. 200, Pol. S. 150, 151, 321, 328, 361, and Soc. 131.
5. Transportation economics.
   27 hours of economics including Econ. 214, 384, 386; Math. 124, 134; 18 hours of cognate courses including Geog. 365, U.P. 171, and 12 hours chosen from C.E. 230, 231, 333, and G.E. 230, 348.
6. Quantitative economics.
   30 hours of economics including Econ. 272, 374, 375; Math. 124, 134, 141 (special section), 315; B. Adm. 374; C.S. 103 or 105; and Phil. 102.
7. International economics.
   27 hours of economics including Econ. 328, 329; Math. 124, 134, 141 (special section); 18 hours of cognate courses, with 12 hours in one discipline chosen

from B. Adm. 370, Comm. 377, Geog. 104, Hist. 112, 211, 212, 374, and Pol. S. 100, 280, 384, 385.

8. Urban economics.
   27 hours of economics including Econ. 360, 361; Math. 124, 134; Fin. 264; Geog. 105; Soc. 100, 131, 275, 276; and U.P. 171.

English

ENGLISH

The study of English and American literature offers students a variety of programs, beginning with introductory and preparatory courses with an emphasis on reading for meaning, continuing through advanced and concentrated studies in historical periods and types of literary expression, and reaching finally to special-author and seminar courses at the junior and senior level. These programs are for those students who wish to broaden their understanding of the wide range of our literature and also for those students who may want to look at literature in relation to other subjects (the arts, history, the modern languages, philosophy, and psychology) or who plan to pursue an advanced degree.

Requirements: The basic concentration consists of 50 hours, including at least 30 hours of English courses and 20 hours of approved cognate courses.

1. English courses
   a. At least 9 of the 30 required hours must be at the 300-level; no more than 9 hours may be at the 100-level.
   b. One course in Shakespeare.
   c. At least 3 hours at the 200- and 300-level from each of the following groups. No single course may be used to fulfill the requirement of more than one group.
      Group I: Criticism — Engl. 201, 277, 382, 383.
      Group II: British literature to 1800 — Engl. 202, 204, 206, 209, 315, 316, 321, 322, 326-329.
      Group III: British literature after 1800 — Engl. 207, 210, 240, 247, 331, 333, 335, 341, 342.
      Group IV: American literature — Engl. 249-260, 346-351, 368.
      Group V: Theme, mode, genre, and interdisciplinary courses — Engl. 241-249, 273-275, 361-375, 387.
      Group VI: A major author other than Shakespeare — Engl. 311, 317, 323, 343, 355.
   d. Six hours in rhetoric courses, chosen from Rhet. 143, 144, 145, 202, 205, 227, 263, 305, 306, and 355 may be included in the concentration.
   e. Six hours in independent study — courses (Engl. 199 and 290) may be included in the concentration.
2. Cognate courses
   An approved sequence of 20 hours in one or two allied fields or subjects, with at least 8 hours in the lesser if two are chosen. Students are encouraged to devise their own cognate program, but the choice of courses in the cognate areas must be approved by the academic adviser. The following options are offered as models of how students may combine literary study with a study of one or two cognate fields or disciplines:
   a. Literature and the arts: Art 112, 115, 211, 212, 213, 217-224, 323, 324, 335. Film: Engl. 273; Sp. Com. 207, 307.
   b. Literature and foreign languages:
      Fr. 101-104, 123, 124, 144, 154, 174, 201, 202.
      Ger. 101-104, 122-124, 134, 142, 210, 250-270.
      Ital. 101-104, 211, 212, 221, 222, 290, 311, 312, 313, 321, 322.
      Lat. 101-104, 201-204.

Port. 101-104, 221-304.
Russ. 101-111, 114-116, 121-124, 315, 317, 321-325.
Span. 101-104, 232-242.

c. Literature and history: Hist. 111-152, 203-212, 253-263.
d. Literature and philosophy: Phil. 303-316, 321-326, 330, 332, 335, 336, 341, 343, 345, 361, 363.
e. Literature and psychology: Psych. 101, 201, 216, 248, 252, 338.
f. The program in Asian studies is accepted as a sole cognate area. The following courses are especially recommended:
Chin. 201-204, 207-208, 301-307, 311, 312.
Japan. 201-204, 205-206, 301-306.

3. Special recommendations
a. Students planning to enter graduate school are advised to elect as many 300-level English courses as possible. Further, these students should consult the requirements of the graduate schools they intend to enter.
b. Students interested in the English teacher-training program must consult with the teacher-training adviser. Requirements for the English teacher-training curriculum differ from the field of concentration requirements.
c. Students who are interested in the departmental honors program should consult the honors adviser.

Departmental Distinction: The Department of English offers three courses (Engl. 296, 297, and 298) which are restricted to concentrators with a grade-point average of 4.25 (A = 5.0). In addition it offers a tutorial (English 293) leading to the writing of a thesis. A student may earn consideration for the rank of Distinction in English in the following ways: 1) 9 hours of honors seminars plus Engl. 290, 2) 9 hours of honors seminars plus Engl. 293, 3) 6 hours of honors seminars plus Engl. 290 and Engl. 293.

In order to be considered for the further rank of High Distinction in English the student must write a thesis. Students should not enroll in English 293 unless they have already taken enough honors work to enable them to complete the program. This work must be taken in addition to the minimum requirements for the concentration.

The specific level of distinction is determined by the honors committee, the instructors of the seminars, the student's tutor, and such other faculty members as may be asked to read the honors thesis. If, in the opinion of this group, a candidate fails to earn any kind of distinction, he will still receive credit for the honors courses he has taken. This group may also award a prize for the outstanding honors essay written in an academic year.

An English education major whose schedule is too crowded to permit him to take the 12 hours required may, with the specific approval of the English education adviser, earn consideration for distinction by completing two seminars plus English 293. English education majors who are in doubt about their programs should consult with their adviser.

RHETORIC

The field of concentration in rhetoric consists of a minimum of 44 hours distributed as follows:

1. At least one course in expository writing selected from Rhet. 143 or 227.
2. Nine additional hours of rhetoric selected from Rhet. 143, 144, 145, 205, 227, 305, 306, 355.
3. One course in Shakespeare.
4. Nine additional hours of English selected from 200- and 300-level courses.
5. Sp. Com. 263 or 363 or Journ. 326 may be counted toward the concentration with an adviser's permission.
6. An additional 20 hours of cognate course work selected in consultation with an

adviser. Cognate courses should either all be in one discipline or be related to each other by topic, time period, or area.

Departmental Distinction: A student majoring in rhetoric and composition who meets the University grade-point requirement (4.0 or higher) (A = 5.0) may earn distinction only by completing 9 hours of honors work in addition to the minimum of hours required for his concentration. This additional credit must involve a significant writing project in Rhet. 355, and any two of the following three honors courses: Engl. 296, 297, 298. The level of distinction (Distinction, High Distinction, Highest Distinction) is determined by the instructors in charge of the courses and the honors committee. If, in the opinion of his instructors and the committee, a candidate has not earned distinction, he may still receive credit for the course.

Entomology

This program is now a part of the life sciences field of concentration. See page 312.

Finance

The field of concentration in finance requires at least 24 hours in finance courses and 21 hours of allied course work. The cognate work may include prerequisite courses for finance courses.

Finance courses may be selected from any combination of the subfields listed below. Work in economic principles is directly or indirectly a prerequisite for all finance courses, and Econ. 101 should be taken in the sophomore year. Students who expect to elect Fin. 254 or any other course for which Fin. 254 is a prerequisite should take its prerequisites, Accy. 105 or 201 and Econ. 172, in the sophomore year. Students are urged to take Math. 134 and C.S. 105. Although these courses are not required, they do provide analytical tools which are useful in the field of finance.

The cognate work may be taken in any one or two of the following areas related to various aspects of finance: anthropology, economics, geography, history, philosophy, political science, psychology, sociology, and mathematics. In addition, students concentrating in real estate and urban economics may take urban and regional planning, architecture, and civil engineering courses suggested below as listings in this field. If two areas are chosen, at least 9 hours must be taken in each one. In exceptional cases, courses in other areas may be taken in satisfaction of this requirement if the adviser is satisfied that they are pertinent to particular subfields.

The selection of courses, both in finance and in cognate work should be made with the approval of an adviser to insure that the program is properly adapted to the student's educational interests. The following areas and cognate courses are suggested:

1. Business finance.
   Fin. 253, 254, 255, 257, 280, 357; Econ. 300, 389; Math. 310; Pol. S. 321.
2. Institutional finance.
   Fin. 230, 255, 258, 357; Econ. 214; Phil. 210; Pol. S. 231; Hist. 262.
3. Insurance and risk management.
   Fin. 260, 262, 360, 363, 370, 371; Econ. 315; Math. 371, 372.
4. Investment.
   Fin. 230, 235, 253, 365; Econ. 300; Math. 310; Pol. S. 321.
5. Money and banking.
   Fin. 150, 252, 258; Econ. 214, 301; Hist. 262.
6. Real estate and urban economics.
   Fin. 364, 365, 366, 367; Econ. 300, 301, 360; Geog. 362, 366, 383; U.P. 374, 376, 384; Arch. 288, 379; Soc. 202, 270, 276; C.E. 240, 316, 318, 333.

A suggested cognate sequence would involve 9 hours in economics and 12 hours in a related field.

French

The field of concentration requires 45 to 48 hours distributed as follows.

Requirements: 30 to 35 hours in French courses beyond the prerequisites Fr. 201, 202, 211, 215, or their equivalent, and excluding all 100-level courses and excluding Fr. 203, 255, 256, 280, and including courses as outlined in individual options below. (N.B. The course Fr. 199 may be included if approved by the option adviser in the concentrator's individual option.) In each option (literature, language and linguistics, civilization) the student will take the section of Fr. 290 appropriate to that option (reading list discussed under the guidance of a tutor) in the sixth and seventh semesters of undergraduate study. For Fr. 290 the student will normally repeat enrollment for one hour/semester for a total of two hours credit. The student must consult with the option adviser at preregistration period during fifth semester to prepare for Fr. 290.

Also required are 12 to 15 hours in courses chosen from departments or programs whose offerings bear strongly on the individual option of the French concentrator. Students must consult with the option adviser in selecting these courses, especially those with prerequisites.

Option I: Literature:

1. Five courses in French literature of which at least two must be taken in French literature prior to 1800 and two in French literature from 1800 to the present.
2. Two courses in French civilization.
3. Two courses in French language and linguistics.
4. Fr. 290: I. Major Tutorial in Literature. Students must consult with option adviser.
5. Fr. 298: I. Senior Seminar in French Literature. To be taken in final year of undergraduate program.
6. Twelve to 15 hours in other departments. Students must consult with option adviser.

Option II: Language and Linguistics:

1. Five courses in French language and linguistics, including Fr. 212 and Fr. 316.
2. One course in each of the following:
   a. French literature to 1800.
   b. French literature from 1800 to the present.
   c. French civilization.
3. One additional course in either French civilization, French film, French language, or French literature.
4. Fr. 290: II. Major Tutorial in Language and Linguistics.
5. Fr. 298: II. Senior Seminar in Language and Linguistics. To be taken in final year of undergraduate program.
6. Twelve to 15 hours in other departments. Students must consult with option adviser.

Option III: Civilization:

1. Four courses in French civilization.
2. One course in cinema as related to French civilization.
3. One course from each of the following:
   a. French literature to 1800.
   b. French literature from 1800 to the present.
4. Two courses in French language and linguistics.
5. Fr. 290: III. Major Tutorial in French Civilization. Students must consult with option adviser.
6. Fr. 298: III. Senior Seminar in French Civilization. To be taken in final year of undergraduate program.
7. Twelve to 15 hours in other departments. Students must consult with option adviser.

Year Abroad Program: See page 283.

Departmental Distinction: Students interested in attaining departmental distinction must take a special program of study and must make application at least one year prior to graduation.

Geography

The core of courses includes 20 hours of geography. Normally 12 hours will be selected from introductory physical geography (Geog. 102-103) and human geography (Geog. 104-105) courses, 6 hours from advanced courses in options other than that elected by the student as a specialty, and 2 hours dealing with the scope and methods of geography (Geog. 296).

Liberal Arts and Graduate Specializations:

1. Man-environment relations.
   Twelve hours of geography in addition to the core courses. Students should select 6 to 9 hours from advanced geography courses dealing specifically with man-environment relations (Geog. 214, 312, 314, 369, 374, 385) and 3 to 6 hours from other advanced geography courses.

   Students preparing for graduate work additionally should include a course in geographic techniques (Geog. 272, 370, 371, 373, 378). Math. 124 and 134 are recommended for fulfillment of the physical sciences general education requirement.

   In addition to courses in geography, students should select 12 to 15 hours in consultation with the adviser from the following departments: agronomy, agricultural economics, architecture, anthropology, biology, botany, civil engineering, economics, history, landscape architecture, political science, psychology, recreation and park administration, sociology, urban and regional planning.

   Total hours in concentration: liberal arts, 44 to 47 hours; graduate preparation, 47 to 51.
2. Human spatial behavior.
   Twelve hours in addition to the core courses. Six hours should be selected from Geog. 366, 384, and 385. The remaining 6 hours should be selected from the following: Geog. 272, 361, 362, 363, 365, 369, 370, 371, 373, 374, 378, 383, and 386.

   Students preparing for graduate work additionally should include a course in geographic techniques (Geog. 272, 370, 371, 373, 378). Math. 124 and 134 are recommended for fulfillment of the physical sciences general education requirement.

   In addition to courses in geography, students should select 12 to 15 hours in consultation with the adviser from the following departments: agricultural economics, communications, economics, history, landscape architecture, political science, psychology, sociology, urban and regional planning.

   Total hours in concentration: liberal arts, 44 to 47 hours; graduate preparation, 47 to 51 hours.
3. The bio-physical environment.
   Nine hours in addition to the core courses. Students should select Geog. 303 and 6 hours from the following: Geog. 272, 290 (Soils or Biogeography), 305, 312, 370, 373, and 378.

   Students preparing for graduate work should include introductory Phycs. 101 or 106, and 107 or Chem. 101 and 102 in their programs. These may be used toward fulfillment of the physical sciences general education requirement. Math. 120, or 120 and 130 are also recommended.

   In addition to courses in geography, students should select, in consultation with the adviser, 12 to 15 hours of courses in agronomy, biology, botany, civil engineering, forestry, geology and zoology.

Total hours in concentration: liberal arts, 41 to 44 hours; graduate preparation, 44 to 50 hours.

4. Regional and historical studies.
Students in this option may concentrate in historical geography or the geography of some continental region or regions. A specialization in urban studies could be developed within this option. In addition to the core courses, students should complete 9 hours of geography from the following courses: Geog. 223, 241, 314, 323, 325, 331, 332, 342, 351, 353, 355, 357, 381, 382, 383.

Students preparing for graduate work should additionally include a course in geographic techniques (Geog. 272, 370, 371, 373, 378). Math. 124 and 134 are recommended for fulfillment of the physical sciences general education requirement. Students specializing in the study of a foreign region should select an appropriate language to fulfill the college foreign language requirement.

In addition to courses in geography, students should select 12 to 15 hours in consultation with the adviser either from those courses recommended by the African, Afro-American, Asian, Latin American, Russian and East European, or West European area studies programs, from the American Civilization option in humanities, from history, or from the urban courses offered in a number of departments.

Total hours in concentration: liberal arts, 41 to 44; graduate preparation, 44 to 48.

Professional Specialization:

1. Resource management.
Fifteen to 20 hours of geography in addition to the core courses. Normally, 9 to 12 hours will be selected from the following courses: Geog. 214, 290 (Soils or Biogeography), 312, 314, 348, 361, 362, 363, 366, 385; and 6 to 8 hours will be in geographic techniques (Geog. 272, 290 (Multivariate Analysis), 370, 371, 373, 378). Supporting courses totaling 12 to 15 hours should be chosen in consultation with the adviser from courses in agricultural economics, agronomy, biology, civil engineering, economics, entomology, forestry, landscape architecture, political science, recreation and park administration, urban and regional planning, zoology. Econ. 101 should be included, either in this selection or in partial fulfillment of the social sciences general education requirement.

Total hours in concentration: 47 to 55 hours.

2. Locational analysis.
Fifteen to 20 hours of geography in addition to the core courses. Normally 6 hours will be selected from Geog. 366, 384, and 385, and 6 to 8 hours will be in geographic techniques (272, 290 (Multivariate Analysis), 370, 371, 373, 378). The remaining geography hours should be selected from Geog. 361, 362, 363, 365, 383. Supporting courses totaling 12 to 15 hours should be chosen in consultation with the adviser from the following departments: agricultural economics, civil engineering, economics, finance, political science, psychology, sociology, urban and regional planning. Econ. 101 should be included, either in this selection or in partial fulfillment of the social sciences general education requirement.

Total hours in concentration: 47 to 55 hours.

3. Spatial graphics and analysis.
Fifteen hours of geography in addition to the core courses. Normally this will include 9 to 12 hours in geographic techniques (Geog. 272, 290, 370, 373, 378) with the remaining hours being selected from advanced geography courses. Supporting courses totaling 12 to 15 hours should be selected in consultation with the adviser from the following departments: art and design, civil engineering, communications, computer science, general engineering, journalism, landscape architecture, mathematics, urban and regional planning.

Total hours in concentration: 47 to 50 hours.

Departmental Distinction: Students eligible for graduation with honors in liberal arts and sciences should consult with the departmental adviser concerning graduation with distinction in geography.

Geology

This field of concentration is designed for students who want a more flexible course of study than is provided by the Curriculum in Geology (08). The program is designed mainly for those wishing to obtain a reasonably liberal education and/or a background in geology for use in fields such as business, environmental science and technology, mineral economics, regional planning, journalism, law, sales, or library science. It will not prepare a student for graduate work in the geological sciences unless the student selects a plan of courses in background mathematics, chemistry, and physics fully comparable to that in the Curriculum in Geology.

Requirements: Prerequisites — Geol. 107, 108;[1] qualification for Math. 120 or 135 and for Chem. 101 or 107.

1. Geology — 20 hours including:
   Geol. 233 or 332 (4)
   Geol. 222 or 320 or 321 (4)
   Geol. 215 (8)
   An additional 300-level course (4)
2. Cognate course work — 31 hours including:
   Math. 120 or 135 (5)
   Chem. 101 and 105, or 107 and 109 (4 or 5)
   Phycs. 101 or 106 (5 or 4)
   Life science (6)
   An additional 12 hours to be approved by a departmental adviser (12)

Departmental Distinction: Students who maintain a minimum grade-point average of 4.5 (A = 5.0) in all geology courses and 4.0 in all other science and mathematics courses and who complete an acceptable bachelor's thesis based on undergraduate research are recommended for graduation with departmental distinction.

Germanic Languages and Literature

The Department of Germanic Languages and Literature offers five options within its field of concentration. Each option focuses on a particular aspect of Germanic studies while allowing students the flexibility to design their own individualized programs in consultation with an adviser. The options are: language and literature, literature in the European context, language studies, modern German studies, and Scandinavian studies.

A minimum of 45 hours for each option excluding German courses on the first- through fourth-semester level and excluding Ger. 134, 135, 142, 153, 164, and 208. Students electing one of the Germanic options are expected to attain a fourth-semester level of proficiency in German prior to beginning their concentration course work; students electing the Scandinavian option should attain a fourth-semester level of proficiency in either German or French in addition to Scandinavian. Ger. 293 — Honors Senior Thesis, is recommended for eligible students in each option. .

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[1] Students planning to concentrate in geology should take Geol. 107-108; students who decide to concentrate in geology after taking Geol. 101 or 102 must take an additional 4 hours of 100-level work excluding Geol./LAS 142 and 143. Geol. 107 or 108 are strongly recommended to complete the total of 8 hours of 100-level work; see a departmental adviser.

Language and literature: Designed as a traditional study of German, providing students with a balanced knowledge of German language, literature, and civilization.

1. Twenty-five hours in German, ordinarily 302, 303, 320, 365, and an additional literature course at the 300 level. In addition to the exclusion noted above, courses in German literature in translation (e.g., 201, 202, 203, and 204) are also excluded.
2. Twenty hours of cognate course work outside of Germanic languages and literature selected in consultation with an adviser.

German literature in the European context: Designed to expand the students' view of literature by acquiring a broad knowledge of German, drawing on courses offered by other literature departments, and exploring the relationship of literature to the arts, history, politics, and culture.

1. Ger. 210 and 22 hours in German beyond 210 including 302, 303, 320 and at least one additional 300-level course.
2. Twenty hours of cognate course work outside of Germanic languages and literature and selected in consultation with an adviser. The study of other literatures in their original language is recommended.

Language studies: Designed to acquaint students with the structure and development of Germanic languages.

1. Twenty-six hours in German, ordinarily 210, 211, 212, 302, 303, 304, 320, 365, and one additional course in German literature beyond Ger. 210.
2. Nineteen additional hours distributed as follows: Gmc. 367, Scan. 101 and 102, Ling. 300 and one additional linguistics course, and Engl. 303.

Modern German studies: Designed to provide students an understanding of present-day civilization and culture in German-speaking countries of Central Europe.

1. Twenty-eight hours in German, ordinarily 210, 211, 212, 253, 270, 303, 306, 320, 365.
2. Either one year abroad with the department's study program in Baden, Austria, or with an approved program in another German-speaking country, or 17 hours of cognate course work outside of Germanic languages and literature selected in consultation with an adviser.

Scandinavian studies: Designed for students who will be able to spend a year abroad studying in Scandinavia.

1. Twelve hours in Scandinavian beyond Scan. 101-104 (may not be used to fulfill LAS college foreign language requirement).
2. Twenty-four hours of study abroad in Scandinavian through an approved LAS 299 program (in e.g., language, literature, history, art, political science, or linguistics). Nine additional hours of cognate work outside of Scandinavian studies must be selected in consultation with an adviser.

Year Abroad Program: See page 284.

Departmental Distinction: Students are urged to consult the departmental honors adviser by the second semester of their junior year for information pertaining to senior honors work and honors awards in the department. Concentrators in the department whose University grade-point average is 4.3 or higher should enroll in Ger. 293 — Honors Senior Thesis, for a total of 4 hours of credit in their last year of study. These hours are not to be included in the total number of hours necessary for fulfilling the minimum concentration requirements. Students may be awarded departmental distinction if the prescribed honors work is successfully completed. This can be done for Highest Distinction by students with at least a 4.7 University grade-point average and a 5.0 in departmental courses, who write a thesis of superior quality; for High Distinction by students with at least a 4.5 University average and a 4.7 average in departmental courses, who write a good

thesis or comprehensive examination based on readings in the honors course; or for Distinction by students with at least a 4.3 University grade-point average and a 4.5 average in departmental courses, who write a creditable paper or examination based on special readings. Juniors interested in special independent study are advised to consult with the head of the department.

Greek

This program is now part of the classics field of concentration. See page 297.

History

A field of concentration in history requires a total of 44 hours in addition to a prerequisite of one freshman-sophomore survey sequence.

Students in the history curriculum should acquire a broad background from the study of the human experience in different cultures and time periods. A broad distribution of courses is therefore advisable; this is especially true for those who plan to do graduate work in history. Undergraduate students who concentrate in history may declare their history courses as satisfying either the humanities or the social sciences general education component and utilize cognate courses in completing the companion distribution requirement. Students are strongly urged to consult the department's advising staff, especially during advance enrollment and registration.

Requirements: Twenty-four hours in history, all in courses at the 200- and 300-level; one freshman-sophomore survey sequence (Hist. 111-112, 131-132, 151-152, 168-169, 171-172, 173-174, 175-176, 181-182) must be taken as a prerequisite. The courses taken must include at least 12 hours in an area of specialization and at least 6 hours in a second area. The following areas may be selected: Ancient, Medieval, and Renaissance (Europe); Modern Europe since 1500 (including Russia); the United States and Latin America; Africa, the Near and Middle East; South, Southeast, East Asia. With the approval of the departmental adviser and in consultation with a sponsoring professor, a student may develop before the beginning of the senior year a special topical, geographical, or chronological area of concentration (for example, prelaw, Latin American studies, the world from 1789 to 1914). All students are required to take Hist. 298, for which the prerequisites are 14 hours in history, 6 of them at the advanced level.

In addition, students are required to take 20 hours of cognate courses outside the history department. The traditional areas for cognates are: ancient and modern languages (excluding the first-year elementary courses and also excluding the second-year courses if those courses are being used to fulfill the language requirement in the College of Liberal Arts and Sciences), anthropology, art history, classical archaeology and civilization, economics, English, American and comparative literature, geography, library science, music history, philosophy, political science, psychology, religious studies, and sociology. Nonhistory courses chosen from the multidisciplinary fields of African studies, Asian studies, Latin American studies, Russian language and area studies, and medieval civilization are also accepted as cognates if they meet the criteria of relevance and academic level. History of science students and premedical and predental students may offer cognate work in the physical and life sciences. All cognate courses should be related by time, area, and/or topic to the area of concentration and are subject to the approval of the history department adviser. Twelve of the 20 hours in cognate courses must be at the advanced level.

For details on the field of concentration in history and the honors program, see the pamphlet *The Undergraduate History Program* obtainable in 300 Gregory Hall.

Departmental Distinction: The fundamental goal of the honors program of the Department of History is to provide the opportunity for history concentrators of

marked ability and high scholastic standing to focus on their own historical interests. Since independent study in the senior year is an essential aspect of the program, students are encouraged to apply for admission in the junior year. The program is by no means limited to students who intend to pursue graduate studies in history.

Humanities

The School of Humanities is an association of humanities departments in the College of Liberal Arts and Sciences and, in cooperation, the College of Fine and Applied Arts. In addition to their own concentrations, these departments have developed an interdisciplinary program of study, sponsored by the School of Humanities, which encompasses several distinct programs designed to acquaint students in a coherent manner with topics that cross disciplinary boundaries. At present, the field of concentration in humanities includes program options in: American civilization, history and philosophy of science, medieval civilization, and Renaissance studies. Since the school is unable to sponsor options in all specialties or topics of humanistic study, students whose interests do not coincide with one of the specific options are encouraged to consult with the school office and to consider developing their own program through the Individual Plans of Study concentration. Enrollment in the field of concentration in humanities requires a declaration of one of the options.

Each option of the field of concentration in humanities is supervised by a committee of faculty whose own scholarship and educational interests have involved them in interdisciplinary teaching and research. The committee chairman serves as the principal adviser of students in each option and is responsible for approving students' plans of study. Action on matters other than course selection is taken by the committee.

Concentration:

1. Elect one of the options offered within the concentration in humanities and file an option declaration with the School of Humanities office no later than the end of the first semester of the junior year. Students who do not begin work on option requirements by their junior year will be at a disadvantage.
2. Select specific courses counted toward completion of an option with the advice and approval of the option adviser. Any coherent program, subject to specific option requirements, developed in consultation with the option adviser is acceptable.
3. Complete all of the following distribution requirements in fulfilling the requirements of an elected option:
   a. Complete a minimum of 45 semester hours of course work applicable toward the concentration; at least 25 hours must be at the 200 and 300 level. *Note: Some course selections may require prerequisite courses;* total hours will most likely be in excess of the 45-hour minimum. However, most students will complete two or perhaps three college general education distribution requirements in the process.
   b. Elect and complete in consultation with an adviser at least 36 hours of topically oriented course work with at least 6 hours in each of three different departments or programs.
   c. Complete a junior seminar and tutorial of at least 3 hours in the elected option.
   d. Complete a senior seminar and tutorial or senior thesis of at least 3 hours as specified in the elected option.

Options:

American civilization: This option offers a comprehensive introduction to the

study of American civilization primarily through the study of art, history, literature, philosophy, and the social sciences.

Requirements (48 hours)

a. Two introductory courses of at least 3 hours each chosen with approval of the option adviser; the introductory courses should provide a broad overview of the development of American culture.
b. At least 9 additional hours selected from among the following: Engl. 249, 255, 259, 260, 346, 347, 350, 351, and 362.
c. At least 9 additional hours selected from among the following: Hist. 260-262, 353-360, 362-364, 367-374.
d. At least 6 hours selected from among the following: Arch. 315 and 316; Art 323, 324, and 325; Phil. 313, 316, 323.
e. At least 12 additional hours selected in consultation with the option adviser from courses offered in the departments of anthropology, economics, geography, political science, and sociology.
f. Substitutions for any of the above specific courses may be permitted with the approval of the option adviser.
g. At least 3 hours in the Junior Tutorial and Seminar — Human. 297.
h. At least 3 hours in the Senior Tutorial and Seminar — Human. 298.

History and philosophy of science: This option is designed to allow students to combine the study of science (including mathematics), the history of science, and the philosophy of science in an integrated program. Within the framework of specific requirements, individual programs of study will be designed to fit the student's particular interests.

Requirements (45 hours)

a. At least 15 hours from among the following with at least 6 hours in Group I and 6 hours in Group II.
Group I: Phil. 270, 318, 329, and 371.
Group II: Hist. 247, 248, 300, and 349; Chem. 395; Geol. 303; Psych. 360. Substitutions for the above specific courses may be permitted with the approval of the option adviser.
b. At least 24 hours of course work in a single discipline selected from the following: biology, botany, entomology, microbiology, physiology, zoology (ecology, ethology, and evolution, or genetics and development), astronomy, biochemistry, chemistry, chemical engineering, geology, mathematics, or physics. In consultation with the option adviser, a student may design an interdepartmental program of science courses; in this case, at least 6 of the 24 hours must be at the 300 level.
c. At least 3 hours in the Junior Tutorial and Seminar — Human. 297.
d. At least 3 hours in the Senior Tutorial and Seminar — Human. 298.

Medieval civilization: This option is intended to introduce students to medieval culture, provide them with a sense of dates, names, ideas, and movements in sequence, and thus give them a synoptic view of the field. Students whose interests are primarily literary should consult with an adviser in comparative literature or one of the language and literature departments. The required courses are designed to encourage students to read medieval texts, insofar as practical, in the manner that a medieval university student would have read them. In addition, a certain amount of training in the reading and interpretation of medieval documents and in the study of Latin and the medieval vernacular languages will bring students closer to the thought of the period.

Requirements (45 hours)

a. Acquire a reading knowledge of a foreign language relevant to the student's interests in medieval civilization. In most instances, this requirement will coincide with the college foreign language requirement. The language should be selected in consultation with the option adviser.
b. Two introductory courses of at least 3 hours each selected in consultation with the option adviser.

c. Complete two advanced-level topically oriented courses of at least 3 hours each selected in consultation with the option adviser. Selected courses should focus on a topic central to medieval civilization and should emphasize the international cultural and social unity of medieval civilization; sample topics include medieval vernacular literatures, mythology, the Bible and medieval exegesis, iconography, paleography and the medieval book, cosmography, geography in the middle ages, or the influence of Islam. Departmental courses, such as Cl. Civ./Hist. 347 and Lat. 361, or special topics courses, such as Human. 295, may be used to complete this requirement, but courses must be selected with the adviser's approval.

d. Complete 24 hours of medieval-related course work selected in consultation with the option adviser from the departments of art, history, literature, music, philosophy, and religious studies.

e. Complete at least 3 hours of the Junior Seminar and Tutorial — Human. 297. The medieval civilization topic of Human. 297 will require an ability to read primary and secondary sources in a foreign language.

f. Complete at least 3 hours of the Senior Thesis — Human. 292. The thesis should ordinarily be in one of the following areas: art, medieval Latin literature, vernacular literature, liturgy and worship, philosophy and theology, history, or science.

Renaissance studies: This option incorporates course work in the Renaissance and related periods and places an emphasis on independent study and the completion of research papers in the junior and senior years.

Requirements (45 hours)

a. Complete a minimum of 15 hours of Renaissance-related course work in a single discipline at the 200 and 300 level from among the following: art, history, literature, or music.

b. Complete at least 24 hours of Renaissance-related course work in the following areas with at least one course in each: art, history, music, philosophy, and literature. At least one of these courses must be in classical literature or culture.

c. Acquire a reading knowledge of a foreign language relevant to the student's interests in Renaissance study, selected in consultation with the option adviser.

d. Complete at least 3 hours in the Junior Seminar and Tutorial — Human. 297, which will lead to the completion of a research paper which demonstrates an ability to initiate and complete a thorough study of a topic on the Renaissance. The successful completion of this paper is a prerequisite to the Senior Seminar and Tutorial.

e. Complete at least 3 hours in the Senior Seminar and Tutorial — Human. 298, which will lead to the completion of a significant research paper.

Individual Plans of Study (IPS)

The student in IPS carries out a personally designed academic program. The guiding principle of an IPS program is to meet the educational need of the student if other established curricula do not suffice. Each individual program is usually based upon the student's perception of a problem, an area of personal concern, a social issue, or an interdisciplinary concentration.

An IPS program is often multidisciplinary and may include regular courses from several departments and colleges as well as independent study either on campus or in the field. Since each program is personalized, there is no prescribed pattern of course work; each student proposes an individualized program. Acceptance into IPS requires approval of this proposal by a faculty adviser and by the IPS advisers and director.

IPS students must meet the regular LAS requirements of rhetoric, general

education, and foreign language. They must also complete at least 120 semester hours and meet the residency requirement.

Students are encouraged to apply to IPS during their sophomore or junior year. However, students who make late decisions about their educational goals are free to discuss possibilities of acceptance with the staff.

This program currently exists as a major. At the time of printing, conversion to a field of concentration was being considered for official approval.

Italian

This concentration is sponsored by the Department of Spanish, Italian, and Portuguese. See page 328.

Latin

This program is now part of the classics field of concentration. See page 297.

Life Sciences

(Including Biology, Botany, Entomology, Microbiology, Physiology and Biophysics, and Provisional Departments of Ecology, Ethology, and Evolution, and of Genetics and Development)

The School of Life Sciences is an association of biology departments in the College of Liberal Arts and Sciences. These departments have cooperated in developing a field of concentration in life sciences with a number of different options suitable for students with different educational objectives. Because of the interdependency of the biology subdisciplines and their reliance on the physical sciences, all undergraduates in this field are required to have a strong background in cognate sciences and broad exposure to biological materials, phenomena, and principles. In more specific terms, all students must have at least *two semesters of introductory biology with laboratory, calculus, organic chemistry with laboratory, and one year of college physics.* Students who do not begin mathematics and chemistry in their freshman year generally will be at a disadvantage. In the advanced biological areas, students are expected to gain experience with living systems at the molecular, cellular, organismic, population, and community levels. The ways of achieving this training differ somewhat in the several options outlined below. The options available are biology general, biology honors, botany, ecology and ethology, entomology, microbiology, and physiology.

Requirements:

1. Each student is required to complete all requirements of an elected option in order to satisfy the requirements of life sciences field of concentration.
2. Each student must file an option declaration statement with the school office no later than the end of the first semester of the junior year.
3. Each student will take a diagnostic exam, administered by the School of Life Sciences, at the time of transition from introductory to advanced undergraduate courses in the school. Transfer students also will take this exam.

Note: A student concentrating in life sciences may not apply toward graduation more than 15 hours of 100-level courses offered by the School of Life Sciences or cross-listed in the School of Life Sciences.

BIOLOGY GENERAL OPTION

This option, administered by the General Biology Committee, provides maximum flexibility by allowing the student to design his or her own program. In selecting courses at the 200- and 300-level, the student should strike a balance between breadth and specialization. It is desirable that programs contain a core of courses which provide a logical progression into a specialized area. The program should

contain courses which complement the core and provide a wider view of biology. Students electing this option, therefore, must discuss these matters with their advisers and file an approved study plan in the school office at the same time as the option declaration statement. The study plan may be revised with adviser approval.

Requirements:

1. Biol. 110 and 111.
2. Math. 120 or 135.
3. Chem. 101 and 102 both with laboratory, or Chem. 107-109 and 108-110; Chem. 131 and 134, or Chem. 136 and 181.
4. Phycs. 101 and 102, or Phycs. 106, 107, and 108.
5. Twenty additional hours in life sciences at the 200-level or above.

Recommended Cognate Study: Field and/or laboratory experimental courses in biology; additional calculus, statistics, and/or computer science; or biochemistry.

Departmental Distinction: In addition to the above requirements, candidates for distinction must:

1. Register with the Biology Distinction Committee early in their senior year;
2. Maintain a minimum grade-point average of at least 4.0 (A = 5.0);
3. Submit a satisfactory report of an independent study project (290 or 292 rubric) to the Biology Distinction Committee one month prior to graduation.

BIOLOGY HONORS OPTION

This option, administered by the Honors Biology Committee, is designed for superior students who wish to pursue an intensive introductory biology program while concurrently gaining a strong background in the physical sciences. This program provides suitable preparation for graduate and professional training in biology. Continuation in the option requires a minimum grade of B in each of the required core biology courses, Biol. 151, 251, and 351.

Requirements:

1. Admission by interview in spring of freshman year.
2. Biol. 151, 251, and 351, instead of Biol. 110 and 111.
3. Chem. 107-109 and 108-110; and Chem. 136 and 181. Students whose placement examination scores prevent their taking Chem. 107-109 and 108-110 may substitute Chem. 101 and 102 both with laboratory.
4. Math. 130 or 135.
5. Phycs. 106, 107, and 108. Phycs. 101 and 102 may be substituted with adviser approval.
6. A course in statistics approved by the Honors Biology Committee.
7. Biochemistry lecture and laboratory.
8. Ten hours of 300-level life science courses, excluding Biol. 351 and 371. Two of these 10 hours may be in life science undergraduate research courses (290 or 292 rubrics).

Recommended Cognate Study: Courses in computer science.

Departmental Distinction: In addition to the above requirements, candidates for distinction must:

1. Register with the Honors Biology Committee early during their senior year.
2. Complete an undergraduate research project.
3. Present an acceptable written report on the research to the Biology Distinction Committee one month prior to graduation.

BOTANY OPTION

This option is intended to provide undergraduate training for life science concentrators who seek a broad plant science background in preparation for advanced

work in botany or applied plant sciences. Opportunity is provided within the option for students to study a wide variety of basic and applied botanical specializations.

Requirements:

1. Biol. 110 and 111, or an introductory lecture-laboratory course in life sciences in addition to Bot. 100 or Bot. 101.
2. Chem. 101 and 102 both with laboratory, or Chem. 107-109 and 108-110; Chem. 131 and 134.
3. Math. 120 or 135.
4. Phycs. 101 and 102, or Phycs. 106, 107, and 108.
5. Plant taxonomy (Bot. 260), genetics (Biol. 210), plant physiology (Bot. 330), plant morphology (Bot. 304), and plant ecology (Bot. 381).
6. Individual study (Bot. 290 or 292) during the senior year.
7. Required cognate study: At least 10 hours of additional course work selected in consultation with an option adviser from the following — agronomy, biochemistry, biology, chemistry, entomology, forestry, geography, geology, horticulture, matematics, microbiology, physics, physiology, plant pathology, and zoology.

Recommended Cognate Study: Statistics and/or computer science.

Departmental Distinction: In addition to the above requirements, candidates for distinction must:

1. Maintain a minimum grade-point average of 4.0 (A = 5.0) overall and 4.5 in biological sciences courses fulfilling the option requirements.
2. Present an acceptable undergraduate thesis (Bot. 292) with the recommendation of the thesis adviser one month prior to graduation.

ECOLOGY AND ETHOLOGY OPTION

This option, administered by the Provisional Department of Ecology, Ethology, and Evolution, is intended to provide undergraduate training for life sciences concentrators who have a special interest in the closely related areas of animal ecology and behavior. Students following this option will be prepared to pursue advanced degree work in ecology and ethology, or to compete for jobs in state fish and game departments and environmental protection agencies and for positions as natural science laboratory technicians. Because of the very broad scope of this option and the numerous courses which relate, specific course requirements are few. The student, in consultation with an option adviser, should develop a program in environmental or behavioral biology with cognate study in animal and plant ecology and natural history, zoology, geology, geography, physiological psychology, general physiology, and related areas.

Requirements:

1. Biol. 110 and 111.
2. Math. 120 or 135.
3. Chem. 101 and 102 both with laboratory, or Chem. 107-109 and 108-110; Chem. 131 and 134, or Chem. 136 and 181.
4. Phycs. 101 and 102, or Phycs. 106, 107, and 108.
5. Biol. 210, Biol. 212, Biol. 310, and Zool. 346.
6. Additional life science courses, chosen in consultation with an adviser, at the 200-level or above to a total of at least 20 hours.

Recommended Cognate Study: Courses in statistics and computer science.

Departmental Distinction: In addition to the above requirements, candidates for distinction must:

1. Maintain a minimum grade-point average of at least 4.0 (A = 5.0) and 4.5 in option requirements.
2. Submit an acceptable written report on an independent (or supervised) research project to the departmental honors committee no later than one month prior to graduation.

ENTOMOLOGY OPTION

This option is intended to provide undergraduate training to life science concentrators who seek a broad science background in preparation for advanced work in entomology or who intend to specialize in entomology as preparation for professional work in such areas as economic entomology, industry or positions in local, state, or federal government. Opportunities are provided within the option for students to obtain exposure to a wide variety of entomological specializations.

Requirements:

1. Biol. 110 and 111.
2. Chem. 101 and 102 both with laboratory, or Chem. 107-109 and 108-110: Chem. 131 and 134, or Chem. 136 and 181.
3. Math. 120 or 135.
4. Phycs. 101 and 102, or Phycs. 106, 107, and 108.
5. Entom. 301 and 302, plus one additional 300-level entomology course.
6. A course in statistics.
7. Eleven hours of additional life science courses chosen in consultation with an entomology adviser.

Recommended Cognate Study: Undergraduate research (Entom. 290) directed by a member of the Department of Entomology or by an entomologist of the State Natural History Survey.

Departmental Distinction: In addition to the above requirements, candidates for distinction must:

1. Maintain a minimum overall grade-point average of 4.0 (A = 5.0).
2. Complete an undergraduate research project including a minimum of 4 hours in Entom. 290.
3. Present to the departmental office at least one month prior to graduation, an acceptable written report on the research which has been approved by the Entom. 290 adviser.

MICROBIOLOGY OPTION

This option is intended to provide a strong educational background in microbiology and its supporting disciplines. Students satisfying the requirements of the microbiology option may expect to be well prepared for graduate study or for entry into a wide variety of technical occupations, including research, health services, industrial, and agricultural activities. Students may design their study programs to extend their experience in genetics or other areas of biology, in biochemistry or other areas of chemistry, or in social and economic aspects of microbiology.

Requirements:

1. Biol. 110 and 111.
2. Math. 120 and one of the following: Math. 130, 131, or 161; Biol. 371; C.S. 101.
3. Chem. 101 and 102 both with laboratory, or Chem. 107-109 and 108-110; Chem. 131 and 134.
4. Biochem. 350 (355 optional), or Biochem. 352 and 353.
5. Phycs. 101 and 102, or Phycs. 106, 107, and 108.
6. Biol. 210.
7. Mcbio. 200 and 201.
8. At least 15 hours of 300-level microbiology courses, including at least one course from each of the following groups:

   Group I: Mcbio. 316, 330, 331
   Group II: Mcbio. 309, 327, 351, 352
   Group III: Mcbio. 311, 312, 326

Recommended Cognate Study: Independent laboratory study (Mcbio. 290).

Departmental Distinction: In addition to the above requirements, candidates for distinction must:

1. Submit a satisfactory senior thesis (Mcbio. 292).
2. Maintain a minimum grade-point average of 4.5 (A = 5.0) in filling the above requirements.

PHYSIOLOGY OPTION

Physiology is a subdivision of experimental biology which is concerned with the analysis of function in living cells or organisms with particularly strong emphasis on regulation and integration. Specialties within the field include subjects related to behavior (integrative neurophysiology), to the relations of lower organisms to their environments (comparative physiology or physiological zoology), to the relations of the human species to its environment (ergonomics and human physiology), to interrelations between and functioning of organ systems in the whole organism (mammalian physiology), and to the fundamental molecular and cellular mechanisms of life (cell physiology and biophysics).

Numerous choices must be made among pathways in the physical sciences in physiology and in related areas of biology. It is essential therefore that a student concentrating in physiology consult with his adviser as early as possible and at frequent intervals thereafter. In addition to offering counsel for making these choices, the adviser is also the proper person for approving any substitutions in the curriculum as indicated below:

Requirements:

1. Biol. 110 and 111 (or approved equivalent).
2. Chem. 107-109 and Chem. 108-110 (101 and 102 both with laboratory, acceptable) and Chem. 131 and 134.
3. Biochem. 350 (or approved equivalent).
4. Math. 120 and 130.
5. At least one year of physics (Phycs. 101-102 acceptable; Phycs. 106, 107, 108 recommended).
6. Biol. 210 (or approved equivalent).
7. Physl. 301 and 302; Physl. 303 and 304 (Physl. 290 research, Biochem. 355, or another laboratory course in physiology may be substituted for either Physl. 303 or 304, but not both).
8. Three additional hours of physiology or biophysics.
9. Two courses from one of the following areas:
   Behavioral biology: Zool. 246, 346, 348; Psych. 211.
   Organismic biology: Zool. 232, 332, 333; Bot. 234, 330.
   Cellular biology: Biol. 211, 307; Zool. 334; Mcbio. 330, 351.

Recommended Cognate Study: Physical chemistry, statistics, differential equations.

Departmental Distinction: Candidates for distinction must enroll in Physl. 290 and, working with a departmental adviser, prepare a report based on laboratory or library research. This report will be submitted to a committee which will recommend the level of distinction to the faculty.

Linguistics

Undergraduate instruction in linguistics has two purposes: it is intended to prepare students for various careers in which the scientific study of language is of significance; it is, furthermore, the basis for a continued professional training toward the M.A. and Ph.D. degrees in this field.

The field of concentration requires a minimum of 44 hours including 30 hours within linguistics and 14 cognate hours. The hours in linguistics must include Ling. 200, 225, 300, 301, and 302; the balance selected from among other 200- and 300-level courses. Students are expected to take two courses in each of two special areas

of linguistics, such as psycholinguistics, applied linguistics, sociolinguistics, mathematical and computational linguistics, non-western language structure, and area linguistics (African, Classics, East Asian, Germanic, Indo-European, Romance, Semitic, Slavic, South Asian). Students should take all of their cognate hours in linguistically relevant courses in any one or more of the following departments: anthropology, classics, computer science, English, English as a second language, French, Germanic, philosophy, psychology, Slavic, Spanish, Italian, and Portuguese, speech and hearing science, and speech communication.

In addition to the basic requirement of 44 hours described above, students are encouraged to undertake two years of study of a second foreign language in addition to the language used to satisfy the college foreign language requirement. This second language may be either a western or non-western language. Each student's program, including the selection of the special areas and second language credit, is to be worked out in consultation with the departmental adviser.

Departmental Distinction: Candidates for the degree with Distinction must register their candidacy with their adviser no later than the beginning of the second semester of the junior year. The student must achieve a grade-point average of at least 4.4 (A = 5.0) for the required 30 hours in linguistics including at least 4 hours credit for individual study. For graduation with High or Highest Distinction, the same minimum requirements apply, plus the submission of a senior honors thesis to be submitted to the Department of Linguistics by the first day of the month preceding the month of graduation.

Mathematics

ACTUARIAL SCIENCE

Designed to prepare students to enter the actuarial profession, the field of concentration in actuarial science requires a minimum of 39 hours in addition to a calculus sequence.

1. Calculus through Math. 140, 141, or 145, or equivalent.
2. C.S. 101, or equivalent.
3. Math. 310, 363, 370, and 371.
4. At least one of Math. 364, 368.
5. At least two of Math. 311, 343, 372.
6. Fin. 260, 262.
7. At least three of Fin. 360, 363, 370, 371. Students with a grade-point average of 4.0 (A = 5.0) or better who are interested in research may substitute Fin. 294-295 for one of these courses, with consent of finance department adviser in risk and insurance area.
8. Students are urged to elect Accy. 201 and B. Adm. 261 in their junior or senior year.

MATHEMATICS

An entering student with adequate preparation in high school mathematics should enroll in Math. 120 during the first semester and in Math. 130 or 131 during the second semester of his freshman year. Admission to Math. 120 normally requires a passing grade on the Mathematics Placement Test. A student ineligible for Math. 120 should enroll in algebra (Math. 111 or 112) and trigonometry (Math. 114) during his first semester.

Two different options are offered:

Option 1: For students intending to continue the study of mathematics in graduate school.

1. Calculus through Math. 140, 141, or 145, or equivalent.
2. Math. 317, 318, 332, 347, and 348.

3. Nine additional hours of mathematics courses with numbers greater than 290.
4. C.S. 101 or 121, or equivalent.
5. One of the following science sequences:
   a. Astr. 101, 102.
   b. Any 8 hours of chemistry.
   c. Phycs. 106, 107.

Option 2: For students interested primarily in a general liberal education.

1. Calculus through Math. 140, 141, or 145, or equivalent.
2. At least one course from each of the following lists:
   a. Math. 313, 314, 317, 319, 353.
   b. Math. 315, 318, 383.
   c. Math. 303, 323, 327, 332.
   d. Math. 361, 363.
   e. Math. 341, 346, 347.
3. At least 6 additional hours of mathematics courses with numbers greater than 290.
4. C.S. 101 or 121, or equivalent.
5. It is required that at least 10 hours be taken in a secondary subject in which mathematical methods are employed. Each student must have advance approval from the departmental undergraduate adviser.

MATHEMATICS AND COMPUTER SCIENCE

This concentration is sponsored jointly by the Departments of Mathematics and Computer Science. See page 298.

STATISTICS

Designed to prepare students for professional and graduate work in statistics.

1. Calculus through Math. 140, 141, or 145, or equivalent.
2. Math. 347, Math. 365.
3. One course from each of the following four lists:
   a. Math. 346, 348.
   b. Math. 361, 363.
   c. Math. 362, 364.
   d. Math. 366, 368.
4. At least 15 hours in a secondary subject, approved by the department, in which statistical methods are applicable. Not more than 6 of these hours may be in courses emphasizing statistical methods.
5. Students are urged to obtain a knowledge of basic computer programming.

Departmental Distinction: Information regarding requirements for graduation with departmental distinction in the above curricula is available from the advising office, 269 Altgeld Hall.

Medieval Civilization

This program is now part of the humanities field of concentration. See page 309.

Microbiology

This program is now part of the life sciences field of concentration. See page 312.

Music

The field of concentration in music within the College of Liberal Arts and Sciences exists to meet the needs of those students who wish a larger selection of electives than the several FAA music programs admit. The B.A. degree conferred in this

field leads to the possibility of continued postgraduate study in such areas as music theory and composition, ethnomusicology, or the investigation of traditional European "art" music.

Much of the advanced instruction in music is tutorial, often involving highly specialized interests or instruction in a field of applied music. Accordingly, each student is entitled to choose an adviser most suited to his particular interests.

Requirements: All concentrators in music must complete or proficiency Music 101 through 104, 108, 109, 160, 161, 213, 214, one 300-level music theory course, and one music history course from the course series 310-137. In addition, concentrators must complete 20 hours of course work from one of the music options (musicology, ethnomusicology, or music theory and composition). The character of courses chosen within these options may vary considerably depending upon the specific area of specialization within the option. The following are illustrative of the types of programs possible.

Musicology option:

1. With emphasis on medieval/Renaissance musicology.
   a. Music 307, 308, and either 310 or 311.
   b. At least 11 hours of cognate courses chosen from Hist. 111, 112, 203, 204, 304, 305 (or 332 and 333);
   A course in medieval or Renaissance literature (e.g., Engl. 202, 204, C. Lit. 204);
   Art 111;
   Lat. 101, 102.
2. With emphasis on modern musicology.
   a. Music 313, 314, 315.
   b. At least 11 hours of cognate courses chosen from Hist. 111, 112, 323, 324, 309, 310 (or 312, 313);
   Engl. 206 and 207 or C. Lit. 363, 364;
   Art 112.

Ethnomusicology option:

1. With emphasis on American Indian cultures.
   a. Music 308, 317 (6 hours) and one additional course from the series 310-315.
   b. At least 11 hours of cognate courses chosen from Anth. 110 (or 103), 230, 331, 332 (or 333 or 361);
   Rel. St. 363;
   Hist. 151, 152.
2. With emphasis on India and Middle Eastern culture.
   a. Music 308, 317 (6 hours) and one additional course from the series 310-315.
   b. At least 11 hours of cognate courses chosen from Anth. 110 (or 103), 230, and 368;
   Rel. St. 297.
3. With emphasis on African and Afro-American cultures.
   a. Music 308, 317 (6 hours) and one additional course from the series 310-315.
   b. At least 11 hours of cognate courses chosen from Anth. 110 or 103, 124, 230, and 261;
   One sequence in Afro-American history such as Anth. 367 and Hist. 215 or Hist. 253-254.

Music theory and composition option:

1. Music courses — 8 to 9 hours chosen from Music 300-309.
2. At least 11 to 12 hours of cognate courses chosen to include Math. 118;
   One course in English composition (e.g., Rhet. 133 or equivalent);
   One course in philosophy with emphasis on aesthetics (e.g., Phil. 101, 102, 105, or 323).

Philosophy

The concentration in philosophy consists of a minimum of 40 hours of course work, including the following core courses: Phil. 102, 303, 306, 321, and at least one additional 300-level course in philosophy. The remainder of a student's program is planned by him with the help of a departmental adviser and must be approved by the departmental advising chairman. In addition to the core courses, a student may elect one of the two following types of programs:

1. Intensive study in another discipline, consisting of a minimum of 12 hours of work. Normally, this work is at the 200-level or higher.
2. A special program of study built around a unifying theme or topic. This will involve a minimum of two courses in philosophy and at least 12 hours of course work outside of philosophy. Normally this outside work will be advanced work. The program may be built around an historical period, including philosophy courses relating to the period, together with other courses concerning the history, literature, culture, etc., of the period. The program may concern the philosophy of a certain subject — language, politics, science, religion, art, etc. — supplemented by study in the related field. Other possibilities include the study of a particular philosophical problem with outside work in appropriate disciplines.

Sample Programs: The following are sample special programs illustrating some of the possibilities.

1. Ancient Greece.
   E.g., Phil. 309, 310, 317; Hist. 381; Art 217; Pol. S. 393; Cl. Civ. 301, 332.
2. History and philosophy of science.
   E.g., Chem. 101, 102, and Biol. 110, 111 (to satisfy the general education requirements in the physical and biological sciences); Phil. 317, 318, 370; Hist. 331, 348; Chem. 131; Biol. 151, 210. This program stresses biological sciences. Other programs might stress physics, psychology, or some other science.
3. Nineteenth-century Europe.
   E.g., Phil. 311, 312, 345; Art 221; Engl. 333, 334; Hist. 311; Russ. 315.
4. Philosophy and religion.
   E.g., Phil. 230, 324, 363, 369; Rel. St. 231, 340, 387; Anth. 363 or Soc. 229 and 328.
5. Philosophy, government, and law.
   E.g., Phil. 103, 104; Econ. 214, 306; Pol. S. 351, 354; Hist. 345, 346.
6. Theory of knowledge.
   E.g., Phil. 330 or 331, 317, 318; Math. 118, 119; Phycs. 150; Hist. 323 or 324.

Departmental Distinction: Qualified philosophy concentrators may become candidates for graduation with distinction in philosophy by undertaking a special course of study. This normally will include writing a thesis and taking the senior seminar. A full description of this program and the conditions of eligibility can be obtained in the department office. Eligible students who wish to enroll in this program should register with the Department of Philosophy at the beginning of the first semester of their senior year.

Physics

This field of concentration allows students maximum flexibility to develop scientifically oriented careers in fields requiring a physics background. See also the engineering physics, LAS physics, and LAS teaching of physics curricula.

Requirements:

1. General physics and calculus satisfied by the sequence Phycs. 106, 107, and 108, or equivalent, together with the sequence Math. 120, 130, and 140, or equivalent.
2. Twenty hours of 200- or 300-level physics courses including Phycs. 321, 341, and 342.

3. Twenty additional hours of scientifically oriented courses selected with departmental approval from the following areas, with at least two courses in each area chosen: astronomy, atmospheric sciences, chemistry, various branches of engineering, environmental sciences (see departmental office for listing), geology, life sciences, mathematics, philosophy, social sciences and education oriented toward teaching of science.

Physiology

This program is now part of the life sciences field of concentration. See page 312.

Political Science

The Department of Political Science encourages students to acquire a broad understanding of political science and to pursue in depth selected subfields of the discipline. To accomplish these objectives, the department provides courses of study which introduce students to the discipline and to its principal subfields. Among these are American government, politics, and administration; comparative government, politics, and administration; international relations, organization, and foreign policy; normative theory; and political behavior and empirical theory. Cognate courses are an integral part of the program and should be selected with a view toward building a coherent structure of courses adapted to the student's particular needs.

Requirements: The field of concentration in political science requires 44 hours. Of these, 24 hours must be within the Department of Political Science, to be distributed as follows:

1. Pol. S. 100 and 150.
2. Any two of the courses Pol. S. 240, 260, 270, 280.
3. At least four additional courses at the 200 or 300 level. (Most 300-level courses will require as a prerequisite the appropriate 200-level course [or, in the case of American politics courses, 150] or consent of instructor.)

Not more than 6 hours of individual study courses in political science may be included in the field of concentration. Pol. S. 293 is reserved for those seniors doing honors theses for distinction in political science, and may not be counted in the 44-hour minimum required for the field of concentration.

Outside the department, at least 20 cognate hours are required in one or two of the following fields: anthropology, economics, English, education, finance, foreign language, geography, history, mathematics, philosophy, psychology, social work, sociology, speech communication, or urban planning. Cognate courses should normally complement subfield concentrations in political science chosen by the student. If two fields are chosen, a minimum of 8 hours in each is required. At least 12 of these 20 hours must be at the 200 level or above. (Courses taken in satisfaction of the college foreign language requirement may not normally be used as cognate courses.)

Students may also choose certain interdepartmental curricula, such as area studies or medieval civilization, as a cognate field of study. Students choosing interdisciplinary cognate study (drawn from three or more departments) or any special cognate field not listed above must have written permission from the Department of Political Science undergraduate adviser or their faculty adviser.

Departmental Distinction: In order to qualify for graduation with distinction in political science, concentrators must have a grade-point average of 4.25 or better in all political science courses. These must include Pol. S. 293, in which the student must have enrolled for at least 4 hours credit and completed a senior honors thesis. The thesis must be submitted to the thesis supervisor by the tenth day of the month preceding the month of graduation. The departmental honors board will assign Distinction, High Distinction, or Highest Distinction according to the grade-point average and quality of the thesis.

Portuguese

This concentration is sponsored by the Department of Spanish, Italian, and Portuguese. See page 328.

Psychology

This field of concentration is designed both for students seeking a general sciences and letters baccalaureate with psychology as a focal area and for students intending to pursue graduate or professional postbaccalaureate training in psychology or related fields. Students electing the field of concentration in psychology may pursue their studies by specializing in a content area of psychology. Suggested patterns of both psychology and nonpsychology courses recommended for various areas of specialization may be obtained from the Psychology Undergraduate Advising Office.

Core Program Requirements: All students with a field of concentration in psychology must have at least 24 hours of psychology, including required courses from the following areas:

1. One course in introductory psychology.
2. A course in statistics or research design in psychology.
3. Two courses from Psych. 211, 217, 230, 247, 248.
4. Two courses from Psych. 201, 216, 245, 250, 258, 338, 339.

One of the following courses may be substituted for one of the courses listed in area (3) above *or* for one of the courses listed in area (4) above: Psych. 324, 325, 326, 335, 348, 356, 360.

A maximum of 4 credit hours of Psych. 199 may be counted toward the concentration in psychology (unless a prior exemption is made in a specific case by the undergraduate academic adviser). Six hours of credit for individual study (200 level) may be counted toward the field of concentration.

The student who plans graduate study in psychology is reminded that most graduate schools require undergraduate laboratory courses in psychology. It is strongly recommended that two laboratory courses be taken from among Psych. 311, 330, 331, 332, 333, 345, 347, 350, 390. Also recommended for graduate preparatory training is mathematics through calculus and one year of laboratory science other than psychology. Some graduate programs require proficiency in foreign language, usually French, German, or Russian.

Cognate and Related Course Requirements: In addition to the core program, all students must take 20 additional hours of course work that will meaningfully complement the 24 core hours in psychology. At least 12 hours must be outside of psychology and the remaining 8 hours may be either outside of psychology or in psychology courses. These courses must be approved by the undergraduate academic adviser.

Departmental Distinction: Requirements for graduation with departmental distinction in psychology are as follows: Admission to the psychology department's honors program (a 4.5 (A = 5.0) grade-point average in psychology and 4.25 cumulative grade-point average is required for application); credit in Psych. 291 and 293; and an acceptable bachelor's thesis.

Religious Studies

The field of concentration in religious studies consists of 35 to 55 hours in religious studies and cognate courses selected in consultation with an adviser. Any coherent program worked out in consultation with an adviser is permitted. A careful use of independent studies courses (Rel. St. 290) is also encouraged for the development of suitable concentrations. Distinction in the program is granted on the basis of excellence in religious studies as demonstrated in course work and a senior thesis. The final determination of distinction is by vote of the faculty of the Program in Religious Studies.

Sample Programs: The following course programs are examples of acceptable patterns for a concentration in religious studies.

1. World religions (48-hour minimum).
   a. Surveys and methods: Rel. St. 100 or 110, 230.
   b. Biblical studies: Rel. St. 201, 202.
   c. Christianity (three of the following): Rel. St. 231, 304, 306 or 330, 340, 350.
   d. Judaism (one of the following): Rel. St. 120, 220, 221, 241.
   e. Islam: Rel. St. 307.
   f. Hinduism and Buddhism: Rel. St. 297, 368, 387.
   g. Cognate studies: Soc. 229, 328; Anth. 363; Phil. 324.
2. Philosophy of religion (38-hour minimum).
   a. Surveys and methods: Rel. St. 110 or 100, Phil. 230; also recommended, Phil. 101.
   b. Basic work in philosophy: Phil. 303, 306; also recommended, either Phil. 104 or 210 or 321; also recommended, either Phil. 270 or 327.
   c. Basic work in religion: at least one course in a Western religious tradition (e.g., Rel. St. 120, 201, 202, 231) and at least one course in an Eastern religious tradition (e.g., Rel. St. 297, 368, 387).
   d. Advanced work in some tradition or area of philosophy, with a coherent sequence (such as Phil. 304 and 326; or 311, 315, and 341; or 316 and 330; or 321, 322, and 335) and Phil. 324.
   e. Advanced work in a religious tradition, with a coherent sequence such as (for Judaism) Rel. St. 204, 240, 241; (for Christianity) Rel. St. 206, 231 or 340 or 369, 304 or 306; (for Islam) Rel. St. 204, Hist. 173, 307; (for Hinduism) Rel. St. 297, 368, Hist. 387; (for Buddhism) Rel. St. 297, 368, 387.
3. Indian religious thought (42-hour minimum).
   a. Surveys and methods: Rel. St. 110 or 100, 230.
   b. Core courses: Rel. St. 297, 368, 387.
   c. Cognate courses: Anth. 168 and possibly 368; Hist. 387 and possibly 388, 389; Soc. 328.
   d. Language requirement: four semesters of an Indian language, classical or modern.
   e. Basic work in a Western religious tradition: at least two courses from Rel. St. 120, 201, 202, 231, 240, 241, 340, 369.
4. Biblical studies (45-hour minimum).
   a. Methods: Rel. St. 100 or 230.
   b. Core courses: Rel. St. 201, 101 and 241 or 340.
   c. Language requirement: either Hebrew or Greek or both in some acceptable combination; 15 to 20 hours are required. Grk. 111, 112, 200, 371; Hebr. 108, 109, 210, 211. The language requirement may be dropped if another coherent course plan is developed.
   d. Background (two of the following): Rel. St. 208, 213, 240, 241, 340.
   e. Interpretation (two of the following): Rel. St. 204, 206, 240, 298.
   f. Related studies (two of the following): Rel. St. 220, 304, 305, 306, 320, 350, 362, 363, 369, 381, 382.
   g. Other religious traditions (one of the following): Rel. St. 297, 307, 328, 368, 387.
5. Hebrew Bible and the Ancient Near East (40-hour minimum).
   a. Methods: Rel. St. 100 or 230.
   b. Core courses: Rel. St. 201; Hebr. 108, 109, 210, 211.
   c. The Ancient Near East (one of the following): Rel. St. 213; Art 212.
   d. Israelite literature (two of the following): Rel. St. 204, 208, 250, 298.
   e. Cognate studies: a minimum of six hours in these or other appropriate courses. Rel. St. 120, 202, 240, 241, 320, 353; Arab. 201, 202; Grk. 101, 102 or 111, 112; Ling. 300, 302; Hist. 181, 307; directed language study (Aramaic, Akkadian, Sumerian, Ugaritic).

f. Eastern religions (two courses): Rel. St. 297, 387.
g. Senior thesis (a minimum of three hours): Rel. St. 290.

6. Early Christianity (51-hour minimum).
   a. Methods: Rel. St. 100 or 230.
   b. Core courses: Rel. St. 201, 202, 340.
   c. Related studies: Rel. St. 206 and 208; or Hist. 383 and 384; or Hist. 182 and Rel. St. 206 or 208.
   d. Background: Rel. St. 240 and 241; or Rel. St. 241 and Phil. 303.
   e. Greek: Grk. 111, 112, 200, 371 or Grk. 101, 102, 201, 202.
   f. History of Christian thought (two of the following): Rel. St. 231, 304, 350, 362, 369.
   g. Other religious traditions (two of the following): Rel. St. 297, 307, 328, 363, 368, 387.

   Independent studies (Rel. St. 290) will be provided when relevant for readings in Patristic literature.

7. History of Christianity (48-hour minimum).
   a. Core courses in religious studies: Rel. St. 201, 202, 231, 304, 306 or 330, 340.
   b. Cognate courses in history: Hist. 181 and 182 or 383 and 384, 305, 347, 371, 372.
   c. Other modes of inquiry (two of the following): Rel. St. 100, 230, 350; Anth. 363; Phil. 303, 306; Hist. 323, 324; Soc. 229.
   d. Other religious traditions (two of the following): Rel. St. 297, 368, 387; Hist. 307.

8. Classical Judaism (48-hour minimum).
   a. Methods: Rel. St. 100 or 230.
   b. Hebrew: Hebr. 110, 111, 210, and 211 or 320.
   c. Core courses: Rel. St. 201, 202, 240, 241.
   d. Related studies (two of the following): Rel. St. 208, 213, 220, 221, 290, 340.
   e. Cognate studies (two of the following): Grk. 101 and 102, or 111 and 112; Hist. 181 and 182, or 382 and 384.
   f. Other religious traditions (two of the following): Rel. St. 297, 307, 363, 368, 387.

9. Modern Judaism (48-hour minimum).
   a. Methods: Rel. St. 100 or 230.
   b. Hebrew: Hebr. 110, 111, 210, and 211 or 320; or M. Hbr. 201, 202, 303.
   c. Core courses: Rel. St. 201, 220, 221, 241.
   d. Related studies: Rel. St. 290 (readings in medieval Judaism) and one history course relevant to area of interest.
   e. Cognate studies: a modern language relevant to area of interest, or Phil. 306 and 311.
   f. Other religious traditions (two of the following): Rel. St. 297, 307, 363, 368, 387.

Rhetoric

This concentration is sponsored by the Department of English. See page 301.

Russian

The field of concentration in Russian consists of at least 45 hours distributed as follows:

1. A minimum of 15 semester hours of Russian language from the following courses (with at least 6 hours on the 300-level): Russ. 211-214, 290, 303, 304, 307, 308, 313, 314.
2. A minimum of 15 semester hours of Russian literature from the following courses (with at least 6 hours of courses taught in Russian): Russian 116, 215, 216, 217,

301, 302, 315, 317, 321, **322, 323, 324,** 325, 335, 337. (Courses listed in bold type are taught in Russian.)

3. A minimum of 15 semester hours of cognate courses distributed in one of the following ways:
   a. Russ. 114 and four courses beyond the 100-level in a single language or literature other than Russian.
   b. A minimum of 15 semester hours of literature courses in the several departments of European literatures selected so as to complement (for comparative purposes) the Russian literature courses selected in (2) above.
   c. History 219 and any four of the following courses: Slav. 319, Soc. 350, Hist. 320, 321, 327, 328, Geog. 353, Anth. 381, Pol. S. 335, 383, Econ. 357.
   d. Other combinations of courses and individual projects amounting to 15 semester hours may be chosen with the approval of the departmental adviser, as long as the courses concern some aspect of Russian and Slavic culture.

Note: Russian 114 — Russian Civilization and Russian 115 — Russian Literature in Translation are recommended.

Departmental Distinction: Concentrators in the Department of Slavic Languages and Literatures who have a University grade-point average of 4.0 (A = 5.0) and whose grade-point average in the Department of Slavic Languages and Literatures courses is 4.3 or higher, should enroll in Russian 293 — Honors Senior Thesis for a total of at least 2 hours. Students may graduate with departmental distinction if the prescribed honors work is successfully completed. For Distinction, students must have a grade-point average of at least 4.3 (A = 5.0) in department courses and write an acceptable paper or pass an examination based on special readings; for High Distinction, students must have a grade-point average of at least 4.5 in department courses and write a thesis of good quality or pass an examination based on assigned readings; for Highest Distinction, students must have a grade-point average of at least 4.7 in department courses and write a thesis of superior quality.

Concentrators in the department are urged to consult the departmental honors adviser during their junior year for information pertaining to graduation with departmental distinction.

Russian Language and East European Studies

Two specializations are offered: 1) specialization in Russian language and area studies; and 2) specialization focusing more broadly on Eastern Europe as well as Russia.

The aim of each specialization is to provide the student with: a) a base in one discipline such as will permit him, without much additional work, to qualify for graduate study if he so desires; b) an interdisciplinary spread focused on the geographic area selected; and c) a start toward the language training needed for the area.

Specialization in Russian Language and Area Studies:

1. At least 16 hours of Russian language courses or equivalent proficiency. This requirement may be met by completing Russ. 104 or 105 or 106 or 112 or 124. Persons contemplating graduate work in this field are advised to gain command of the Russian language as soon as possible.
2. At least 20 hours in courses focusing on Russia or the Soviet Union, including at least one course from each of three departments other than the department used for component (3). Although some of the courses used to count under (2) may be from the same discipline as that used for (3), any one course can be counted in only one category rather than in both. Courses currently being offered that focus entirely on Russia include: Anth. 381, 382; Econ. 357; Geog. 353; Hist. 219, 320, 321, 325-328; Pol. S. 335, 383; Russ. 114, 115, 116, 199, 217, 301, 302, 315, 317, 321, 322, 323, 324, 325, 335, 337; Soc. 350. Others may be counted upon permission of the center director. (See next page.)

3. At least 20 semester hours in a single discipline. Among those disciplines that are most commonly used with this specialization are anthropology, economics, geography, history, political science, Russian, and sociology. Among disciplines also used are education, English, fine arts, French, German, journalism, linguistics, mathematics, philosophy, psychology, and various natural sciences. Others are permitted. If a foreign language is used for this component, 20 hours must be taken beyond the introductory courses (i.e., normally the first two years, or the 101-104 sequence). Each student is expected to obtain the advice of a faculty member in his chosen discipline to help him in the planning of this part of his program.

Specialization in East European and Russian Studies:

1. At least 16 hours (normally two college years) or equivalent proficiency in one approved language (usually Russian), plus at least two semesters or equivalent proficiency in a second approved language. Approved languages are languages used to a significant extent in East Europe or the Soviet Union or for the study of those areas. The choice is to be made in consultation with the center director, who will take into account the student's educational goals. Students should bear in mind that professional work in these areas usually requires extensive language training.
2. At least 20 hours in courses focusing on Eastern Europe as well as Russia, subject to the general rules mentioned under (1) above. In addition to the courses mentioned there dealing with Russia, the following are offered dealing with Eastern Europe: Hist. 329, 330; Pol. S. 346; Slav. 319. Others may be included upon permission of the center director. (See below.)
3. At least 20 semester hours in a single discipline, as explained in (c) above.

Additional courses: In addition to courses that deal wholly with Eastern Europe or the USSR and are mentioned under both specializations above, there are many others that are devoted in a significant degree to Russia and Eastern Europe. They are normally taught by faculty members who have some knowledge of East European languages and may be counted toward the above specializations if the center director approves. In cases where only a small fraction of a course deals with Russia or Eastern Europe, partial credit toward concentration requirements may be given.

Among the additional courses that may be mentioned especially for their East European or Russian content are Ag. Ec. 318; Econ. 255; Hist. 298 (when taught by persons in this field); Hist. 311, 312, 315, 316, 318, 319, and 394; Pol. S. 396.

Among the East European languages offered in addition to Russian are Czech, Polish, Modern Greek, Rumanian, Serbo-Croatian, and Ukrainian. Others, such as Bulgarian, Hungarian, Latvian, Lithuanian, Macedonian, Slovenian, Turkish, and Uzbek, may be studied under special arrangements, including those provided by the center.

Departmental Distinction: Students hoping to qualify for distinction in a specialization sponsored by this center should consult with the center director at the beginning of the junior year or earlier in order to prepare a suitable plan. This plan will usually include the writing of a substantial research paper in consultation with some faculty member of the center.

Social Welfare

Only students who have been admitted to the liberal arts program by January 1975 (except possibly for some off-campus transfer students admitted for August 1975) may complete a major or a field of concentration in social welfare. These students should see the liberal arts and sciences social welfare adviser for the requirements of the major or the field of concentration in social welfare.

All other students (including beginning freshmen) who are interested in social welfare should consult the Jane Addams School of Social Work concerning the cur-

riculum leading to the Bachelor of Social Work (B.S.W.). See page 379 for information.

Sociology

Sociology is concerned with and uses a variety of intellectual tools and technical skills to analyze several different areas of social life. Sociology concentrators are expected to develop these tools and skills in one of five optional fields of concentration. Students are expected to distribute their selections among the options as described below.

Requirements: A minimum of 30 hours in sociology including Soc. 100, 184, 185, one 300-level sociological theory course, a minimum of 9 hours of course work chosen from one of the sociology options below, and another 9 hours in any other sociology option. Students must also take 12 cognate hours in their chosen sociology option. Students who expect to attend graduate school in sociology should also consider taking Soc. 385 and 387.

The course distribution and cognate areas for five options in sociology are described below.

Theory and Methods Option: Soc. 300, 311, 325, 332, 385, 386, 387. Cognate areas: Phil. 102, 270, 325, 330, 335, 343, 371; Hist. 247, 248, 349; Pol. S. 394-397.

Social Organization Option: Soc. 202, 206, 221, 223, 224, 225, 229, 231, 251, 309, 311, 315-318, 321, 322, 324, 326, 331, 335, 359, 360. Cognate areas: Anth. 320, 321; Econ. 236, 238, 240, 255; LIR and Econ. 315, 341, 343, 345; Hist. 253, 254, 272, 350, 351, 357, 358, 363, 364, 379, 396; Pol. S. 326, 328, 353, 388, 392, 396.

Demography and Human Ecology Option: Soc. 223, 270, 275, 276, 318, 321, 329, 343, 385, 387. Cognate areas: Anth. 103, 230, 321, 330; Arch. 288; Math. 135, 145, 161; U.P. 171; Biol. 212, 310, 311; Econ. 101, 236, 238, 345, 350, 352. 353, 354; Geog. 361, 362, 365, 366, 383, 384, 385; H. Ed. 110, 150, 391; Hist. 350, 351, 357, 358.

Social Interaction Option: Soc. 131, 201, 231, 240, 316, 320, 321, 323, 332, 340, 352, 359. Cognate areas: Psych. 202, 333, 339, 348, 353, 354; Phil. 325, 332; P.E. 349; Anth. 371; Comm. 370; Geog. 385.

Comparative Sociology Option: Soc. 277, 303, 309, 318, 321, 328, 329, 335, 343, 350, 355, 371, 373. Cognate areas: Anth. 173, 222, 260, 261, 321, 330, 332, 333, 334, 349, 350, 360, 361, 364, 367, 368, 373, 375, 376, 377, 378, 379, 381-387; Econ. 255, 350, 353, 354, 357, 358; Hist. 211, 212, 316, 385, 386, 389, 394, 396; L.A. St. 295; Pol. S. 241, 245, 335-339, 340, 342, 343, 345-347.

Spanish, Italian, and Portuguese

SPANISH

The field of concentration requires 44 hours distributed as follows.

1. At least 27 hours in Spanish courses above the 100-level, of which the following (or equivalent) must be included: Span. 200, 209, 211, 217, 232, 233, 240, 241, 242, 298, and at least one course at the 300-level. Students are advised that graduate-level courses (for example, 405, 417, 424, 432, 433, and 453) may be open to them with the consent of the instructor, in consultation with their adviser.
2. At least 15 to 17 hours, chosen in consultation with an adviser, in one related area (or a combination of two or three, with no less than 8 hours in each) to complete the required 44 hours. There is a wide choice in cognate courses since the student's interests may vary from Spanish language and literature (both continental and Spanish American) to commerce in Spanish-America, or international law, or Latin American studies. The following are possible cognate

areas: any of the other modern or ancient languages and literatures which may be appropriate to individual interests; humanities (comparative literature, comparative religion, linguistics, philosophy); social sciences (anthropology, geography, history, Latin American studies, political science, sociology); education; fine arts; journalism. Other possibilities can be approved in individual cases (such as biology, chemistry, commerce, communications, economics, engineering, finance, physics, physiology, psychology).

Year Abroad Program: See page 285.

ITALIAN

The field of concentration requires 44 hours distributed as follows.

1. At least 26 hours in Italian courses beyond the prerequisites of Ital. 101-104, including Ital. 209, 211, 212, 221, 311, 312, 321, 322, and another 300-level course. Ital. 199, 290, and 293 may be included with the approval of the undergraduate adviser of Italian and the course instructor. Students are advised that graduate-level courses (for example, 411, 412, 415, 416, 422, 451, 452, and 462) may be open to them with the consent of the instructor and in consultation with their adviser.
2. At least 15 to 18 hours, chosen in consultation with an adviser, in one related area (or a combination of two or three, with no fewer than 8 hours in each) to complete the required 44 hours. There is a wide choice in cognate courses since the student's interests may vary from Italian language and literature to international banking, law, art history, music, or painting. The following are possible cognate areas: any of the other modern or ancient languages and literatures which may be appropriate to individual interests; humanities (comparative literature, comparative religion, linguistics, philosophy); social sciences (anthropology, geography, history, Latin American studies, political science, sociology); education; fine and applied arts (architecture, art history, fine arts); journalism. Other possibilities can be approved in individual cases (biology, chemistry, commerce, communications, economics, engineering, physics, physiology, psychology).

PORTUGUESE

The field of concentration requires 44 hours distributed as follows.

1. At least 26 hours in Portuguese courses beyond the prerequisites of Port. 101-104 and Port. 111-112, including Port. 209, 212, 221, 222, 301-304, and 362. Port. 199 and 290 may be included with the approval of the undergraduate adviser for Portuguese and the course instructor. Students are advised that graduate-level courses (for example, 405-408, 462, and 491) may also be open to them with the consent of the instructor.
2. At least 15 to 18 hours, chosen in consultation with an adviser, in one related area (or no fewer than 8 hours in each of two) to complete the required 44 hours. There is a wide choice of cognate courses since the student's interests may vary from Iberian literature to animal husbandry in Angola and urbanology in Brazil. The following are possible cognate areas: any of the other modern or ancient languages and literatures which may be appropriate to individual interests; humanities (comparative literature, comparative religion, linguistics, philosophy); social sciences (anthropology, geography, history, Latin American studies, political science, sociology); education; fine and applied arts (architecture, art history, fine arts); journalism. Other possibilities can be approved in individual cases (biology, chemistry, commerce, communications, economics, engineering, physics, physiology, psychology).

Speech Communication

The Department of Speech Communication offers two options within its field of

concentration: rhetorical and communication theory, and interpretation. The field of concentration consists of a minimum of 48 hours distributed as follows.

1. A minimum of 29 hours in courses in speech communication, at least 15 of which must be at the 200-level or above.
2. A minimum of 12 hours in cognate courses chosen from departments or programs whose offerings are appropriate to the option selected. Students must obtain the approval of a speech communication adviser for their program of courses.
3. A minimum of 7 additional hours in speech communication or cognate courses selected in consultation with an adviser.

Rhetorical and Communication Theory Option:

This option provides a broad acquaintance with theory, practice, and criticism in rhetorical and communication theory.

Requirements: The student must take at least one speech communication course from each of the following areas.

1. Interpersonal and small group communication: Sp. Com. 113, 211, 230, 313, 335.
2. Persuasion and social influence: Sp. Com. 213, 221, 223, 320, 321, 324.
3. Rhetorical theory: Sp. Com. 102, 210, 315, 317, 332.
4. Criticism of public discourse: Sp. Com. 177, 252, 253, 254, 323, 324, 350, 353.

Sample Programs: Additional hours in speech communication and in cognate fields will be chosen in consultation with, and with the approval of, a departmental adviser. The resulting program may be distributed among the four areas listed above, or it may be a specialized program organized around a theme or topic. The following are a few examples of programs within the field of concentration option:

1. Interpersonal communication.
   Sp. Com. 101, 102, 113, 177, 211, 221, 230, 313, 335, 374; Psych. 100, 201, 354; Soc. 100, 320, 323.
2. Persuasion and social influence.
   Sp. Com. 101, 213, 221, 223, 230, 253, 320, 321, 322, 324; Psych. 100, 201, 352; Comm. 218 or 251; Soc. 100, 340.
3. Criticism of public discourse.
   Sp. Com. 101, 210, 221, 223, 230, 253, 317, 323, 350, 353; Comm. 231; Engl. 382, 383; Hist. 323 and 324, or 371 and 372; Pol. S. 100 or 150.
4. Rhetoric and communication in legal advocacy.
   Sp. Com. 101, 113, 210, 211, 221, 223, 230, 254, 320, 321; Comm. 241; Hist. 369, 370; Phil. 102, 103; Pol. S. 100, 354.

Interpretation Option:

Requirements: In this option the student must elect Sp. Com. 141, 142, 161, 243, 255, 342, 344, and 345.

Additionally the student must elect at least 18 hours in literature courses approved by a speech communication adviser. These should include a course in Shakespeare, a course in American literature, a course in English literature before 1800, and a course in English literature from 1800 to present.

Departmental Distinction: To graduate with distinction, a student must have a 4.25 (A = 5.0) all-university average, a 4.5 curriculum average, and 12 hours of courses numbered 300 and above within the department. With the adviser's approval, 4 semester hours of Sp. Com. 293 may be counted toward the 12 hours of courses numbered 300 and above.

Statistics

This field of concentration is sponsored by the Department of Mathematics. See page 318.

Specialized Curricula

CURRICULA IN CHEMICAL ENGINEERING AND CHEMISTRY

The following curricula in chemistry and chemical engineering afford more specialized training than is required of students who make chemistry their concentration in the sciences and letters curriculum in liberal arts and sciences. However, the chemistry concentration can also be used by a student planning to follow a career in chemistry. Requirements for this concentration are described on page 296.

CURRICULUM IN CHEMISTRY

For the degree of Bachelor of Science in Chemistry

A total of at least 130 semester hours, excluding military training, of course work as outlined below, with a 3.0 (A=5.0) academic grade-point average or better, is required for graduation. The Department of Chemistry will supply upon request a brochure showing recommended semester-by-semester programs for the completion of the curriculum.

The requirements for graduation with Distinction are the same as for the sciences and letters concentration in chemistry; see page 296.

Certain substitutions by equivalent courses or sequences are normally allowed. For example, Chem. 101, 102, 104 (or 105-106), 122 can be substituted for Chem. 107, 108, 109, 110. Mathematics through 141 or 145 can be substituted for the sequence Math. 120, 130, 140 below. Such substitutions do not affect the requirement of a total of 130 semester hours for graduation. Some substitutions, such as Phycs. 101, 102, in place of 106, 107, 108, are not allowed. All proposals for substitutions must be discussed with the academic adviser.

REQUIREMENTS	HOURS
Chem. 107, 108, 109, 110, 136, 181, 336, 383, 342, 344, 385, and 315	33
Math. 120, 130, 140	13
Phycs. 106, 107, 108	12
Advanced (300 and 400 level) chemistry and/or biochemistry courses	10
Additional technical electives chosen from: (1) biochemistry; (2) Chem. 290; (3) chemistry, 300 level; (4) Chem. 199, 3 hours maximum; (5) computer science; (6) mathematics courses, 249 and higher; (7) physics; (8) Biol. 151; (9) life sciences or geology courses, 200 level or higher	12
For students who complete Chem. 292 or Bioch. 292, 2 hours of chemistry or biochemistry laboratory work must be included in the 10 hours of advanced chemistry and biochemistry; for students who do not complete Chem. 292 or Bioch. 292, 4 hours of laboratory work must be included.	
At least the first two years of high school or two semesters of University work in one foreign language. German is most strongly recommended.	
Rhetoric (4 hours), humanities (6 hours), and social sciences (6 hours) to meet the all-University requirements in rhetoric and general education	16
Thirty-four hours of free (technical and/or nontechnical) electives, not including any credit in satisfaction of the above requirements, and not including any courses taken preparatory to the chemistry, mathematics, or physics requirements above	34
Minimum total	130

CURRICULUM IN CHEMICAL ENGINEERING

For the degree of Bachelor of Science in Chemical Engineering

A total of 129 hours of credit, excluding military training, is required for graduation as shown on pages 331 and 332.

The chemical engineering curriculum is designed to offer undergraduate stu-

dents a fundamental basis in chemistry, mathematics, and physics, along with training in the application of science to engineering problems. In addition to the required courses in chemical engineering, chemistry, physics, and mathematics, there are sufficient elective courses in other technical and nontechnical areas to provide an excellent scientific and engineering background, coupled with a flexibility which permits the program to be shaped to fit individual interests.

The chemical engineering curriculum is arranged in quite a flexible manner to permit students to use their elective hours and to substitute courses to arrange programs incorporating various specific areas of chemical engineering or interdisciplinary areas. For example, sequences can be set up in conjunction with the student's adviser to emphasize environmental engineering, basic physical sciences, biochemical engineering, engineering practice, or many other options. It will be advantageous to students to plan their course sequences with an adviser as early in their academic careers as possible.

Students entering without adequate preparation in mathematics and chemistry may find it difficult to complete the chemical engineering curriculum in four years. A typical program, including all required courses and electives, is shown below. Individual students may vary the order in which the various courses are taken to suit their individual needs. However, care must be exercised in scheduling to insure that necessary course prerequisites are met.

Departmental Distinction: Students in chemical engineering registered in Ch. E. 292 (Senior Thesis) or 390 (Projects) become candidates for departmental distinction. The level of distinction to be recommended is determined by the quality of the special work done, in addition to the requirements that the overall grade-point averages (for work done at the University of Illinois, exclusive of military training) of 4.2, 4.4, and 4.6 are required for the citations of Distinction, High Distinction, and Highest Distinction, respectively.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 107 — General Chemistry	3
Chem. 109 — General Chemistry Lab.	2
Math. 120 — Calculus and Analytic Geometry	5
Rhet. 105 or 108 — Composition	4
Elective[1,2]	3
Total	17

SECOND SEMESTER	HOURS
Chem. 108 — General Chemistry	3
Chem. 110 — General Chemistry Lab.	2
Math. 130 — Calculus and Analytic Geometry	5
Phycs. 106 — General Physics (Mechanics)	4
Ch. E. 161 — The Chemical Engineering Profession	1
Total	15

SECOND YEAR	
Chem. 136 — Organic Chemistry	3
Chem. 181 — Structure and Synthesis	2
Math. 140 — Calculus and Analytic Geometry	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
Elective[1,2]	3
Total	15

Ch. E. 261 — Introduction to Chemical Engineering	3
Chem. 336 — Organic Chemistry[3]	3
C.S. 101 — Introduction to Automatic Digital Computing	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Elective[1,2]	3
Total	16

[1] Students must complete at least one social science sequence of a minimum of 6 semester hours and one humanities sequence of a minimum of 6 semester hours.

[2] One year of one foreign language is required for the Bachelor of Science degree. Two units of high school credit in one foreign language are equivalent to one year of college credit. Students who take four semesters of foreign language in college may satisfy the humanities elective by taking 8 hours of the intermediate foreign language (103-104) plus at least 3 additional hours from among the courses listed in the general education humanities requirements of the sciences and letters curriculum. (See page 290.)

[3] Biach. 350 may be substituted for Chem. 336.

THIRD YEAR

Ch. E. 370 — Chemical Engineering Thermodynamics 3
Chem. 342 — Physical Chemistry 3
Chem. 383 — Dynamics and Structure 2
Math. 345 — Differential Equations and Orthogonal Functions 3
Electives[1,4] 6
Total 17

Ch. E. 371 — Fluid Mechanics and Heat Transfer 4
Chem. 344 — Physical Chemistry 3
Chem. 385 — Chemical Fundamentals 4
Electives[1,4] 5
Total 16

FOURTH YEAR

Ch. E. 373 — Mass Transfer Operations .. 3
Ch. E. 374 — Chemical Engineering Laboratory 3
Ch. E. 377 — Dynamics and Control of Chemical Systems 3
Electives[1,4] 8
Total 17

Ch. E. 390 — Chemical Engineering Projects 2
Ch. E. 381 — Chemical Reaction Engineering 2
Electives[1,4] 12
Total 16

[1] Students must complete at least one social science sequence of a minimum of 6 semester hours and one humanities sequence of a minimum of 6 semester hours.

[4] Students must take at least 18 hours of technical electives in fields such as chemical engineering, chemistry, biochemistry, physics, mathematics, or engineering. These must include at least 5 hours of chemical engineering electives plus at least 6 additional hours of 300-level electives (or Ch. E. 292).

CURRICULUM IN GEOLOGY

For the degree of Bachelor of Science in Geology

The curriculum in geology is recommended for students who plan to enter graduate study in geology and become professional geologists. It offers more training in geology and basic science than is required of students who make geology their field of concentration in the sciences and letters curriculum in liberal arts and sciences. Requirements for the field of concentration in geology are described on page 306.

After the second year, students in the curriculum must have and maintain at least a 3.5 (A=5.0) grade-point average. A transfer student must have a corresponding record in the institution or institutions from which he transfers and must maintain a similar average at the University of Illinois at Urbana-Champaign.

Students who maintain a minimum grade-point average of 4.5 in all geology courses and 4.0 in all other science and mathematics courses, and who complete an acceptable bachelor's thesis based on undergraduate research, are recommended for graduation with departmental distinction.

A total of 130 hours of credit, excluding military training, is required for graduation. The Department of Geology will supply upon request a brochure showing recommended semester-by-semester programs for the completion of the curriculum.

REQUIREMENTS

Geol. 107, 108[1] 8
Geol. 215,[2] 301, 309, 311, 320, 321, 332, 335, 336, 338 40
Math. 120, 130, 140, or 120, 131, 141, or 135, 145 ..... 10 or 13
Chem. 101, 102, 104 (or 105-106), or 107, 108, 109, 110 ..... 8 or 10
Phycs. 101, 102 or 106, 107 ..... 8 or 10
Rhet. 105 or 108 4
Foreign language — See the sciences and letters curriculum foreign language requirements on page 289 for ways which this requirement may be satisfied. German, Russian, or French is strongly recommended 0-16
Biological science 8

Humanities, college approved general education sequence	6
Social science, college approved general education sequence	6
Electives, recommended electives are physical chemistry, genetics, advanced calculus, differential equations, computer science, statistics, geochemistry, geophysics, atmospheric science, and engineering	9-16
Minimum total	130

[1] Students planning to follow the curriculum in geology should take Geol. 107-108; students who decide to follow the curriculum in geology after taking Geol. 101 or 102 must take an additional 4 hours of 100-level work excluding Geol./LAS 142 and 143. Geol. 107 or 108 are strongly recommended to meet the 4 additional hours requirement; see a departmental adviser.

[2] Geol. 215 is normally taught in Sheridan, Wyoming, during the summer session.

CURRICULUM IN HOME ECONOMICS

For the degree of Bachelor of Science in Home Economics

A minimum of 120 hours is required for graduation. A home economics student in the College of Liberal Arts and Sciences, eligible for graduation with Honors, shall be certified for departmental distinction if H. Ec. 291 or 292 is satisfactorily completed.

REQUIREMENTS	HOURS
Art 185 — Design[1]	2
Biological sciences[2]	
Mcbio. 100 — Introductory Microbiology	3
Mcbio. 101 — Introductory Experimental Microbiology	2
Physl. 103 — Introduction to Human Physiology	4
Total	9
Humanities, college approved general education sequence	6
Language — See the sciences and letters curriculum foreign language requirement on page 289 for ways in which this may be satisfied	0-16
Math. 111 — Algebra, or Math. 112 — College Algebra	3-5
Chem. 101, 102, 104 (or 105-106) — General Chemistry	8
Rhet. 105 or 108 — Composition	4
Social sciences	
Econ. 101 — Introduction to Economics	4
Psych. 100 — Introduction to Psychology, or Psych. 103 — Human Behavior	3-4
Soc. 100 — Introduction to Sociology	3
Home economics courses	
Home economics courses required in option chosen by student[3]	20-29
Three home economics courses selected from areas other than the one chosen[4]	6-10
Additional home economics courses to total at least 28 hours	
Total home economics courses	28-39
Other courses required in specific options. (See page 160.)	6-28

[1] Students in option 1 need not take Art 185, but do take the art courses prescribed in that option.

[2] Students in options 1 and 9 are not required to take the prescribed microbiology and physiology courses, but they must take a total of 12 hours of laboratory sciences including Chem. 101, 102, 104 (or 105-106), and a minimum of 6 hours of biological sciences from the approved general education list. (See page 290.)

[3] Options are: (1) apparel design, (2) the child and the family, (3) foods and nutrition, (4) foods in business, (5) general home economics, (6) home management, (7) hospital dietetics, (8) institution management, (9) retailing of clothing and home furnishings, and (10) textiles and clothing. (See pages 160 and 161.)

[4] Areas are: child and family; foods and nutrition, hospital dietetics, and institution management; home management and family economics; housing, interior design, and equipment; textiles and clothing. Prescribed courses in the general option include at least one course from each of the five areas.

Minor
Twenty hours from one of the following groups: (1) chemistry, mathematics, microbiology; (2) anthropology, economics, psychology, sociology. The minor may be comprised of one subject only, or two subjects with at least 8 hours in each.
Electives to bring total hours to a minimum of 120

CURRICULUM IN PHYSICS

For the degree of Bachelor of Science in Physics

The curriculum in physics is recommended for students who plan to enter graduate study in physics or who wish to prepare to enter government or industrial laboratory research positions upon attaining the bachelor's degree (see also the engineering physics, sciences and letters concentration in physics, and teaching of physics curricula).

A minimum of 126 hours of credit, excluding military science, is required for graduation. To be permitted to register in advanced physics or mathematics courses in this curriculum, a student must have a grade-point average of at least 3.5 (A = 5.0) in all subjects excluding military science and a grade-point average of at least 3.5 in all courses completed in physics and mathematics.

Entering freshmen normally take mathematics, chemistry, a foreign language, and either rhetoric or an elective in the first semester and begin physics in the second semester. Then, by taking Phycs. 108 and 341 concurrently, the basic foundation courses prerequisite to the advanced courses can be concentrated in the first two years.

REQUIREMENTS	HOURS
Chem. 101, 102, 104 (or 105-106). (Chem. 107, 108, 109, and 110 may be substituted by students who desire a more rigorous sequence.)	8
Math. 120, 130, 140, or equivalent and Math. 343, 345 (A student with insufficient high school mathematics may need to take Math. 112, 114 before Math. 120 but receives no credit toward the degree.)	19
Phycs. 106, 107, 108, 341, 342, 321, 386, 387, and one course chosen from Phycs. 303, 322, 360, 371, 389	38
Rhet. 105 or 108	4
General education (Courses chosen to meet the general education requirements of the sciences and letters curriculum except that students offering 1 unit or more of biology for admission may substitute additional courses in humanities or social science for the biological science requirement)	18
Foreign language (A reading knowledge of a modern foreign language. German, French, or Russian is recommended. See the sciences and letters curriculum foreign language requirement on page 289 for ways in which this may be satisfied.)	16
Free electives (Students are advised to include 6-8 hours of physics and 3-6 hours of mathematics among their electives.)	23
Total	126

Departmental Distinction: Students in the liberal arts and sciences physics curriculum are granted department distinction on the following overall grade-point averages: Distinction, 4.2; High Distinction, 4.5; Highest Distinction, 4.8. In addition to the usual course requirements of the liberal arts and sciences physics curriculum, a candidate for distinction must have 8 additional hours of 300- or 400-level physics courses or advanced courses in closely related technical subjects such as nuclear engineering, solid state electronics, astrophysics.

CURRICULUM IN SPEECH AND HEARING SCIENCE

For the degree of Bachelor of Arts in Speech and Hearing Science

A minimum of 124 hours of credit excluding military training is required for graduation.

This curriculum provides a broad background in the biological, behavioral, physical, linguistic, and social foundations of human communication suitable as a basis for graduate and professional training in speech and hearing science for the individual who does not desire to become a speech pathologist or audiologist. This curriculum prepares the student to be a researcher.

REQUIREMENTS

	HOURS
Biological science, including Physl. 103	12
E.E. 220 — Basic Electrical Engineering	3
Foreign language — See the sciences and letters curriculum foreign language requirement on page 289 for ways in which this requirement may be satisfied	0-16
Humanities, college-approved sequence	6
Ling. 325 — Introduction to Psycholinguistics	3
Math. 120, 130, 140, or equivalent	13
Phycs. 106, 107, 108	12
Psych. 100, 235, 311, 330, 331, 390[1]	24
Rhet. 105 or 108	4
Sp. H.S. 109, 301, 375, 376, 383, 385, 390	23

[1] Qualified students may substitute Psych. 306.

Teacher Education Curricula

This section contains a description of requirements of programs leading to the bachelor's degree and teacher certification. More detailed information pertaining to specific course requirements for each area of specialization is provided by faculty advisers appointed by the Urbana Council on Teacher Education. It is essential that each student fulfill the specific course requirements of his program in order to be eligible for the bachelor's degree and teacher certification. Only through regular communication with the teacher education adviser may a student be assured of the appropriateness of his semester program. Also see Urbana Council on Teacher Education on page 116 for information pertinent to all teacher education curricula.

General education requirements of the College of Liberal Arts and Sciences must be fulfilled by students pursuing teacher education curricula in that college. When these curricula include an appropriate sequence in the humanities, the social sciences, or the natural sciences as a part of the major teaching area requirements, that sequence fulfills the corresponding general education requirements.

GENERAL EDUCATION REQUIREMENTS	HOURS
Sp. Com. 111 and 112, Rhet. 105 and a speech performance elective, Rhet. 108 and a speech performance elective	6-7
Natural sciences	6-8
History of the United States	3-4
American government (state and federal constitutions)	3
General psychology	3
Foreign language	16
Health and/or physical education	3
Humanities	6
Total	46-50

PROFESSIONAL EDUCATION REQUIREMENTS

The following requirements are common to all programs preparatory to teaching in secondary schools, except as noted:

Orientation to professional education	2
Principles of secondary education	2

Psychology of teaching and learning 3
Foundations of American Education (educational policy studies) 3
Techniques of teaching 4-5
Educational practice 5-7
Total 19-22

CURRICULUM PREPARATORY TO THE TEACHING OF BIOLOGY

For the degree of Bachelor of Science in the Teaching of Biology

While this curriculum is primarily designed for students preparing to teach biology, it also permits the breadth of work in the sciences required for teaching general science at the junior high school level. The courses outlined below total 129 hours, excluding military training. Competence in the subject areas listed must be demonstrated, and a minimum of 120 hours, excluding military training, is necessary for graduation. Exemptions will be granted in language and mathematics, depending upon the student's high school experience. While students are no longer required to complete a teacher education minor, those desiring a minor must select it from those listed on page 118. The requirements for the minor in general science are fulfilled by those completing this curriculum.

GENERAL EDUCATION REQUIREMENTS **HOURS**

Forty to 42 hours in general education courses. (See page 335.) The requirements of the major satisfy the natural sciences requirement.

PROFESSIONAL EDUCATION REQUIREMENTS

Twenty-one hours in professional education courses. (See page 335.)

REQUIREMENTS OF THE MAJOR

Mathematics
- College algebra and trigonometry 5
- Statistics 3-4

Chemistry
- General 8-10
- Organic 5

Physics 10

Biology
- General 10
- Advanced (200- and 300-level courses or equivalent)
  - Genetics 4
  - Microbiology 6-8
  - Animal or plant physiology 5-6
  - Invertebrate biology 3-5
  - Vertebrate biology 3-5
  - Plant biology 3-5

Environmental biology 3-5
Total 68-82

TEACHER EDUCATION MINOR IN BIOLOGY

Twelve hours of electives are to be chosen from the various departments in the School of Life Sciences, in consultation with the adviser. An attempt should be made to obtain background in each of the general areas in the School of Life Sciences to give the students minoring in the teaching of biological sciences as much breadth as possible as prospective biology teachers.

REQUIRED COURSES **HOURS**

Principles of biology I 5
Principles of biology II 5
Genetics 4

Electives to be taken in the life science areas	12
Total	26

TEACHER EDUCATION MINOR IN GENERAL SCIENCE

Additional hours in other sciences such as astronomy, geology, and physical geography are recommended for the student completing the minor in general science.

REQUIRED COURSES	HOURS
General physics	10
Principles of biology	10
General chemistry	8
Total	28

CURRICULUM PREPARATORY TO THE TEACHING OF CHEMISTRY

For the degree of Bachelor of Science in the Teaching of Chemistry

This curriculum is designed to prepare the student to teach physical science with a major in chemistry and a minor in physics or mathematics. A minimum of 125 hours of credit, excluding military training, is required for graduation.

Students may elect to minor in either mathematics or physics. Regardless of the minor the curriculum requires the completion of the general physics sequence and one year of calculus.

GENERAL EDUCATION REQUIREMENTS

Fifty to 52 hours in general education courses. (See page 335.) Requirements of the major satisfy the natural sciences requirement. A minimum of 4 hours of biological science and a minimum of 6 hours of humanities are required in addition to courses required for teacher certification.

PROFESSIONAL EDUCATION REQUIREMENTS

Nineteen to 21 hours in professional education courses. (See page 335.)

REQUIREMENTS OF THE MAJOR

The sequence of chemistry courses chosen by the student is somewhat flexible and depends upon previous educational experience as well as other factors. The following two sequences of chemistry courses are recommended. The first is the less rigorous program and might be followed by a student whose high school background is not particularly strong. The second is similar to that followed by students in the chemistry curriculum. An intermediate program involving other courses, may be chosen with the consent of the departmental adviser, but, in all cases, the course program should include a course in physical chemistry and two additional courses at the 300 level.

FIRST SEQUENCE	HOURS
General chemistry	8
Elementary quantitative analysis	5
Basic organic chemistry and structure and synthesis	5
Physical chemistry	5
Additional chemistry	9
Total	32

SECOND SEQUENCE	
General chemistry	10
Organic chemistry	6
Structure and synthesis	2
Inorganic chemistry	3
Physical chemistry	6
Dynamics, structure, and physical methods	2
Additional chemistry	3
Total	32

TEACHER EDUCATION MINOR IN CHEMISTRY

REQUIRED COURSES	HOURS
General chemistry	8
Elementary quantitative analysis	5
Elementary organic chemistry, including laboratory	5
Physical science electives (preferably physics)	8-10
Total	26-28

TEACHER EDUCATION MINOR IN PHYSICAL SCIENCE

Twenty-four semester hours in the field with approximately one-half of the work in chemistry and the other half in physics. Additional work in other physical sciences, such as astronomy, geology, and physical geography, is recommended. This minor is intended primarily for students preparing to teach mathematics.

CURRICULUM PREPARATORY TO THE TEACHING OF EARTH SCIENCE

For the degree of Bachelor of Science in the Teaching of Earth Science

This curriculum is designed for students preparing to teach earth science as their major area of specialization. Students in this curriculum are required to complete a teaching minor in biology, chemistry, general science, mathematics, or physical science.

Students who maintain a minimum grade-point average of at least 4.5 (A = 5.0) in all earth science courses and 4.0 in all other science and mathematics courses, and who complete a senior individual study project of at least 4 hours credit in Geol. 290, are recommended for graduation with departmental distinction.

Including general and professional education requirements, the courses outlined below total 129 to 136 hours; the minimum number of hours for graduation, excluding military training, is 125. The college requirements of 30 hours of advanced courses must be met.

GENERAL EDUCATION REQUIREMENTS

Forty to 42 hours in general education courses. (See page 335.) Requirements for the major satisfy the natural science requirement.

PROFESSIONAL EDUCATION REQUIREMENTS

Nineteen to 21 hours in professional education courses. (See page 335.)

REQUIREMENTS OF THE MAJOR

	HOURS
Earth sciences	
General geology	8
Minerals and rocks	4
Paleontology and stratigraphy	4
Regional field study	2
Physical geography (meteorology and climatology)	4
General astronomy[1]	3
Electives[2]	8
Supporting sciences (may fulfill, in part, the teacher education minor)	
General chemistry	4
Mathematics[3]	2-5

[1] Students who do not take a year of physics should take descriptive astronomy; students may also elect to take astronomy for teachers.

[2] A minimum of 8 additional hours in earth science is required. Recommended courses are introductory soils, oceanography, advanced physical geography, or geomorphology, and other appropriate advanced courses in agronomy, astronomy, geology, and geography.

[3] Mathematics through trigonometry is required. Calculus and analytic geometry are recommended for all students.

Principles of biology	5
General physics	5
Total	49-52

REQUIREMENTS OF THE TEACHER EDUCATION MINOR

Students in this curriculum are required to complete one of the following teacher education minors; biology (page 336); chemistry (page 338); general science (page 337); mathematics (page 348); or physical science (page 338).

TEACHER EDUCATION MINOR IN EARTH SCIENCE

REQUIRED COURSES	HOURS
Descriptive astronomy	8
Physical geography I	4
General geology	8
Regional field study	2
Minerals and rocks	4
Total	26

CURRICULUM PREPARATORY TO THE TEACHING OF ENGLISH

For the degree of Bachelor of Arts in the Teaching of English

A minimum of 128 hours, excluding military training, is required for graduation in this curriculum. Students are required to complete one teaching minor or to fulfill requirements for an alternative to a minor. If the student elects the teacher education major in literature, he must complete the teacher education minor in rhetoric or in English as a second language.

GENERAL EDUCATION REQUIREMENTS

Forty-three to 47 hours in general education courses. (See page 335.) The humanities requirement is fulfilled through major teaching field courses. Students in this curriculum must complete a course in oral interpretation of literature (3 hours).

PROFESSIONAL EDUCATION REQUIREMENTS

Students in this curriculum must complete a course in the teaching of reading (3 hours) in addition to the prescribed professional education courses (25 hours). (See page 335.)

REQUIREMENTS OF THE MAJOR	HOURS
Option 1: Teacher Education Major in English	
A minimum of 6 hours chosen from Engl. 101, 102, 103, and 198	6
Shakespeare	3
Survey of American literature	6
Survey of English literature	6
Literary criticism	3
Engl. 302 — Descriptive English Grammar	3
Historical introduction to the English language	3
Engl. 381 — Theory and Practice of Written Composition	3
Engl. 385 — Literature for the High School	3
Advanced English electives	6
Total	42
Any approved teacher education minor (see page 118) or an approved alternative to a minor (see an adviser for details)	18-30
Option 2: Teacher Education Major in Literature	
Available only with the teacher education minor in rhetoric or in English as a second language.	
A minimum of 6 hours chosen from Engl. 101, 102, 103, and 198	6
Shakespeare	3-6
Survey of American literature	6
Survey of English literature	6
Literary criticism	3

Engl. 385 — Literature for the High School 3
Advanced electives in literature 9-12
Total 36-39

TEACHER EDUCATION MINOR IN RHETORIC

Available only with a teacher education major in literature.

REQUIRED COURSES	HOURS
Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective, or Sp. Com. 111 and 112	6-7
Rhet. 133 — Principles of Composition, or Rhet. 143 — Intermediate Expository Writing	3
Rhet. 144 — Narrative Writing	3
Engl. 381 — Theory and Practice of Written Composition	3
Engl. 302 — Descriptive English Grammar	3
Electives in rhetoric or related fields	6-7
Total	24-26

TEACHER EDUCATION MINOR IN ENGLISH AS A SECOND LANGUAGE

Option 1

Available only with a teacher education major in literature.

REQUIRED COURSES	HOURS
Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective, or Sp. Com. 111 and 112	6-7
E.S.L./Ling. 388-389 — Linguistics in Language Learning I and II	8
Ling. 300 — Introduction to Linguistics, or Ling. 200 — Elements of Linguistics	3
Rhet. 133 — Principles of Composition, or Rhet. 143 — Intermediate Expository Writing	3
Engl. 302 or Engl. 302s — Descriptive English Grammar	3
Ling./Anth./Comm. 370 — Language, Culture, and Society, or Ling. 305 — Introduction to Applied Linguistics	3
Total	26-27

Option 2

Available only with a teacher education major in a foreign language, speech, or social studies.

REQUIRED COURSES	HOURS
Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective, or Sp. Com. 111 and 112	6-7
E.S.L./Ling. 388-389 — Linguistics in Language Learning I and II	8
Ling. 300 — Introduction to Linguistics, or Ling. 200 — Elements of Linguistics	3
Rhet. 133 — Principles of Composition, or Rhet. 143 — Intermediate Expository Writing	3
Engl. 302 or 302s — Descriptive English Grammar	3
Engl. 116 — Masterpieces of American Literature, or Engl. 256 — Survey of American Literature II	3
Total	26-27

Option 3

Available only with a teacher education major in English, including section *s* of Engl. 302 — Descriptive English Grammar.

REQUIRED COURSES	HOURS
Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective, or Sp. Com. 111 and 112	6-7
E.S.L./Ling. 388-389 — Linguistics in Language Learning I and II	8

Ling. 300 — Introduction to Linguistics, or Ling. 200 — Elements of Linguistics 3
Ling. 305 — Introduction to Applied Linguistics, or Ling./Sp. Com. 301 — General Phonetics, or Sp. Com. 208 — Speech and Hearing Problems in the Classroom 3
Sp. H.S. 109 — Introduction to Physiological Phonetics 3
Ling./Anth./Comm. 370 — Language, Culture, and Society 3
Total 26-27

TEACHER EDUCATION MINOR IN ENGLISH

REQUIRED COURSES	HOURS
Two courses in American literature	6
Two courses in English literature	6
Literary criticism, or Rhet. 133 — Principles of Composition, or Rhet. 143 — Expository Writing	3
Engl. 302 — Descriptive English Grammar	3
English or American literature or rhetoric (excluding Rhet. 105 and 108 and Sp. Com. 111 and 112)	6
Total	24

CURRICULA PREPARATORY TO TEACHING FOREIGN LANGUAGES

The College of Liberal Arts and Sciences offers curricula for the preparation of teachers of French, German, Latin, Russian, and Spanish. Teacher education minors are also available in these languages and Italian and Portuguese. A supplementary program, substituted for the normally required teacher education minor, is available for those students who plan to teach a foreign language in elementary school as well as secondary school.

CURRICULUM PREPARATORY TO THE TEACHING OF FRENCH

For the degree of Bachelor of Arts in the Teaching of French

A minimum of 120 hours, excluding military training, is required for graduation.

GENERAL EDUCATION REQUIREMENTS

Twenty-four to 28 hours in general education courses. (See page 335.) The humanities requirement as well as the college foreign language requirement is fulfilled by the requirements of the major.

PROFESSIONAL EDUCATION REQUIREMENTS

Nineteen hours in professional education courses. (See page 335.)

TEACHING AREA OF CONCENTRATION: French	HOURS
Elementary French (Fr. 101-102 or equivalent)	8
Intermediate French (Fr. 133-134 or equivalent)	8
French literature (Fr. 201-202 or equivalent)	6
Oral French (Fr. 211-212-217 or equivalent)	10
French composition (Fr. 215 or equivalent)	4
Teachers course (Fr. 280) or equivalent. This course may count as part of the professional education requirements. Normally taken during the student teaching semester	4
Total[1]	40
Electives: Strongly recommended are Fr. 299 (French Study Abroad) and/or additional courses in French civilization, language, and literature. Also recommended is Fr. 270 (Para-teaching in French).	

[1] The total of 40 hours may be reduced by as much as 16 hours through prerequisite credit for work equivalent to Fr. 101-104 taken in secondary school.

TEACHER EDUCATION MINOR

Minor teaching subjects (at least 20 hours) which constitute desirable combinations with French include English, English as a second language, German, history, Latin, music, Russian, Spanish, and social studies. See page 346 for requirements to be fulfilled by those planning to teach French in both elementary and secondary schools.

TEACHER EDUCATION MINOR IN FRENCH

REQUIRED COURSES	HOURS
Elementary French (Fr. 101-102 or equivalent)	8
Intermediate French (Fr. 133-134 or equivalent)	8
Oral French (Fr. 211-212 or equivalent)	6
Total	22

CURRICULUM PREPARATORY TO THE TEACHING OF GERMAN

For the degree of Bachelor of Arts in the Teaching of German

A minimum of 120 hours of credit, excluding military training, is required for graduation.

Students enrolled in the Curriculum Preparatory to the Teaching of German may be awarded departmental Distinction, High Distinction, or Highest Distinction on the basis of the same grade-point averages as stated for sciences and letters concentrators (see page 306), plus enrollment in 2 hours of Ger. 293 — Senior Thesis and Honors Course, and on the basis of their grade in Educational Practice in Secondary Education. Letters of recommendation are solicited from the supervising and the cooperating teachers in this work for evidence of exceptional teaching.

GENERAL EDUCATION REQUIREMENTS

Twenty-four to 28 hours in general education courses. (See page 335.) The humanities requirement as well as the college foreign language requirement is fulfilled by the requirements of the major.

PROFESSIONAL EDUCATION REQUIREMENTS

Nineteen hours in professional education courses. (See page 335.)

TEACHING AREA OF CONCENTRATION: German	HOURS
Elementary German (Ger. 101-102 or equivalent)	8
Intermediate German (Ger. 103-104 or equivalent)	8
Conversation and writing (Ger. 211-212 or equivalent)	6
Advanced conversation, composition, and syntax (Ger. 303 or equivalent)	3
Advanced conversation (Ger. 304 or equivalent)	1
Introduction to German literature (Ger. 210 or equivalent)	3
German literature (any of the five courses listed below)	3
The German novelle of the nineteenth century	
The German novelle of the twentieth century	
Nineteenth century German drama	
Twentieth century German drama	
Lyrics and ballads	
Teachers course[1] (Ger. 280 or equivalent)	4
History of German civilization (Ger. 320 or equivalent)	4
German phonology and morphology (Ger. 365 or equivalent)	3
German elective	3
Total[2]	46

[1] This course will count as part of the professional education requirement.

[2] The total of 46 hours may be reduced by as much as 16 hours through prerequisite credit for work equivalent to Ger. 101-104 taken in the secondary school.

TEACHER EDUCATION MINOR

Minor teaching subjects (at least 20 hours) which constitute desirable combinations with German include English, French, history, Latin, music, physical education, Russian, and Spanish. A double major in German and English with Latin or history as a minor is also recommended. See also page 346 for requirements to be fulfilled by those planning to teach German in both elementary and secondary schools.

ELECTIVES

Recommended electives (8-11 hours) are Art 111, 112; C. Lit. 363, 364; Music 110; Phil. 101; Ger. 114; advanced German courses not included in the minimum program, and other language and literature courses.

TEACHER EDUCATION MINOR IN GERMAN

REQUIRED COURSES	HOURS
Elementary German (Ger. 101-102)	8
Intermediate German (Ger. 103-104)	8
Conversation and writing (Ger. 211-212)	6
Total	22

TEACHER EDUCATION MINOR IN ITALIAN

REQUIRED COURSES	HOURS
Elementary Italian (Ital. 101-102 or equivalent)	8
Intermediate Italian (Ital. 103-104 or equivalent)	8
Composition and conversation I and II (Ital. 211-212)	6
Total	22

CURRICULUM PREPARATORY TO THE TEACHING OF LATIN

For the degree of Bachelor of Arts in the Teaching of Latin

A minimum of 120 hours of credit, excluding military training, is required for graduation.

GENERAL EDUCATION REQUIREMENTS

Twenty-four to 28 hours in general education courses. (See page 335.) The humanities requirement as well as the college foreign language requirement is fulfilled by requirements of the major.

PROFESSIONAL EDUCATION REQUIREMENTS

Nineteen hours in professional education courses. (See page 335.)

TEACHING AREA OF CONCENTRATION: Latin

	HOURS
Courses in the Latin language	
Elementary Latin (Lat. 101-102, or equivalent)	8
Intermediate Latin (Lat. 103-104, or equivalent)	8
Elementary Latin composition (Lat. 113-114, or equivalent)	4
Survey of Latin literature (Lat. 201-202, or equivalent)	6
Cicero's works (Lat. 203, or equivalent)	3
Vergil's works (Lat. 204, or equivalent)	3
Teachers course[1] (Lat. 280, or equivalent)	4
Advanced Latin composition (Lat. 311, or equivalent)	3

[1] This course will count as part of the professional education requirement.

Writings from selected types of Latin literature[2] (two courses from Lat. 381-386, or equivalent) 6
Total 45
The total of 45 hours may be reduced by as much as 16 hours through prerequisite credit for work equivalent to Lat. 101-104 taken in secondary school.
Courses in classical civilization
Ancient history 3-6
Classical archaeology 3
Total 6-9

TEACHER EDUCATION MINOR

Minor teaching subjects (at least 20 hours) which constitute desirable combinations with Latin include English, French, German, Italian, Spanish, Russian, music, history, and social studies. See page 346 for requirements to be fulfilled by those planning to teach Latin in both elementary and secondary schools.

[2] Applies only to students who at entrance are admitted to Lat. 201. Such students are also required to take either Grk. 101-102, or Cl. Civ. 301-302.

TEACHER EDUCATION MINOR IN LATIN

REQUIRED COURSES	HOURS
Elementary Latin (Lat. 101-102, or equivalent)	8
Intermediate Latin (Lat. 103-104, or equivalent)	8
Elementary Latin composition (Lat. 113-114, or equivalent)	4
Survey of Latin literature (Lat. 201-202, or equivalent)	6
Teachers course (Lat. 280)	4
Total	30

The total of 30 hours may be reduced as much as 16 hours through prerequisite credit for secondary school work equivalent to Lat. 101-104. One semester of readings in Latin literature will be required in such cases.

TEACHER EDUCATION MINOR IN PORTUGUESE

REQUIRED COURSES	HOURS
Elementary Portuguese I and II (Port. 101-102)	8
Intermediate Portuguese (Port. 103-104)	8
Intermediate composition and conversation (Port. 211)	3
Introduction to Portuguese and Brazilian literature (Port. 201) or Readings in Portuguese (Port. 290)	3
Total	22

CURRICULUM PREPARATORY TO THE TEACHING OF RUSSIAN

For the degree of Bachelor of Arts in the Teaching of Russian

A minimum of 123 hours of credit, excluding military training, is required for graduation.

GENERAL EDUCATION REQUIREMENTS

Twenty-four to 28 hours in general education courses. (See page 335.) The humanities requirement as well as the college foreign language requirement is fulfilled by the requirements of the major.

PROFESSIONAL EDUCATION REQUIREMENTS

Nineteen hours in professional education courses. (See page 335.)

TEACHING AREA OF CONCENTRATION: Russian

Courses in language and literature	HOURS
Russ. 101-102 — First-Year Russian, or Russ. 111 — Intensive First-Year Russian	8
Russ. 103 — Second-Year Russian	4
Russ. 104 — Grammar Review and Conversation (or Russ. 105 or 106)	4
Russ. 211-212 — Oral Russian I and II, or Russ. 303 — Advanced Reading and Conversation I	6
Russ. 213-214 — Russian Composition I and II, or Russ. 313 — Advanced Composition and Usage I	6
Russ. 215-216 — Russian literature (or Russ. 215 and 217)	6
Russ. 115 or 116 — Russian Literature in Translation I and II	3
Russ. 308 — Russian Phonetics and Diction	3
Russ. 301 — Russian Prose Fiction I, or Russ. 302 — Russian Prose Fiction II, or Russ. 321, 322, 323, 324, 325 — Readings in Russian Literature	3
Total	43
Russ. 280 — Teachers course (counts as professional education)	4
Russian history and civilization	
Hist. 219 — Survey of Russian history from early times to present (or Hist. 319, 320, 321, 325, 326, 327, or 328)	3
Russ. 114 — Russian civilization	4
Total	7

TEACHER EDUCATION MINOR

Minor teaching subjects (at least 20 hours) which constitute desirable combinations with Russian include English, French, German, Latin, Spanish, history, music, physical education, psychology, and social studies. See page 346 for requirements to be fulfilled by those planning to teach Russian in both elementary and secondary schools.

ELECTIVES

Recommended electives (at least 3 hours) include Art 111, 112; C. Lit. 363, 364; Music 130, 131; Phil. 110; Slav. 319, 382; Hist. 313-314; courses in Russian and East European area studies (Geog. 353, Soc. 350); advanced courses in the major or minor field.

TEACHER EDUCATION MINOR IN RUSSIAN

REQUIRED COURSES	HOURS
Russ. 101-102 — First-Year Russian, or Russ. 111 — Intensive First-Year Russian	8
Russ. 103 — Second-Year Russian	4
Russ. 104 — Grammar Review and Conversation (or Russ. 105 or 106)	4
Russ. 211-212 — Oral Russian I and II	6
Total	22

CURRICULUM PREPARATORY TO THE TEACHING OF SPANISH

For the degree of Bachelor of Arts in the Teaching of Spanish

A minimum of 123 hours of credit, excluding military training, is required for graduation.

GENERAL EDUCATION REQUIREMENTS

Twenty-four to 28 hours in general education courses. (See page 335.) The humanities requirement as well as the college foreign language requirement is fulfilled by the requirements of the major.

PROFESSIONAL EDUCATION REQUIREMENTS

Nineteen hours in professional education courses. (See page 335.)

TEACHING AREA OF CONCENTRATION: Spanish	HOURS
Elementary Spanish (Span. 101-102 or equivalent)	8
Intermediate Spanish (Span. 103-104 or equivalent)	8
Literary analysis (Span. 200 or equivalent)	2
Spanish language: Spanish phonetics and syntax	2-4
Spoken Spanish (Span. 211 and 215, or equivalent)	4-6
Spanish composition (Span. 217, or equivalent)	3
Spanish civilization: Spain and Spanish America (Span. 232 and 233, or equivalent)	4
Spanish literature (Span. 240 or 241, or equivalent. Medieval golden age or eighteenth century to present.)	3
Spanish-American literature (Span. 242 or equivalent)	3
Teachers course (Span. 280 or equivalent. This course will count as part of the professional education requirements. Must be taken during the student teaching semester.)	4
Spanish electives: one or two 200- or 300-level courses	2-4
Total	43-49

TEACHER EDUCATION MINOR

Minor teaching subjects (at least 20 hours) which constitute desirable combinations with Spanish include English, English as a second language, Latin, French, German, Russian, Italian, Portuguese, music, history, and social studies. See page 346 for requirements to be fulfilled by those planning to teach Spanish in both elementary and secondary schools.

TEACHER EDUCATION MINOR IN SPANISH

REQUIRED COURSES	HOURS
Elementary Spanish (Span. 101-102 or equivalent)	8
Intermediate Spanish (Span. 103-104 or equivalent)	8
Spanish Language (Span. 209 or equivalent)	3
Oral Spanish (Span. 211 or equivalent)	2
Spanish Composition (Span. 217 or equivalent)	3
Total	24

Specialty for Teaching a Foreign Language in Both High School and Elementary School

This specialty offers preparation for those who wish to teach a foreign language and another subject in a high school or a foreign language only in an elementary school under Illinois teacher certification regulations. Completion of any foreign language curriculum in teacher education will qualify the student for the high school certificate which permits teaching in grades six through twelve. A student who wishes to prepare for teaching a foreign language in the elementary school, as contrasted with one who wishes to prepare for general elementary school teaching, should substitute the following for the teacher education minor required in the foreign language teacher education curricula.

	HOURS
Child development for elementary teachers	3
Classroom programs in childhood education	2
The teaching of language arts in the elementary school	3
Primary reading	3

The student teaching must be done in the seventh or eighth grade.

If these requirements are met the student will be qualified for the special certificate, which will permit him to teach a foreign language in all grades of the public schools, as well as for the high school certificate. The special certificate does not qualify him to teach any elementary school subjects other than the one named on the certificate.

The student may complete a teacher education minor but additional hours will be required.

CURRICULUM PREPARATORY TO THE TEACHING OF GEOGRAPHY

For the degree of Bachelor of Science in the Teaching of Geography

A minimum of 123 hours, excluding military training, is required for graduation. Students are required to complete one teaching minor. It is strongly recommended that the minor supplement the nature of the major. A student emphasizing physical geography should select a minor from the biological or physical sciences, whereas a student emphasizing human geography should select a minor from the social sciences.

GENERAL EDUCATION REQUIREMENTS

Forty-six to 50 hours in general education courses. (See page 335.) Students must complete a 6- to 8-hour sequence in biological science.

PROFESSIONAL EDUCATION REQUIREMENTS

Twenty hours in professional education courses. (See page 335.)

REQUIREMENTS OF THE MAJOR	HOURS
Introduction to physical geography	4
Introduction to human geography	4
Scope and methods of geography	2
Geography electives: selected in consultation with the adviser and including at least one course in each of the following areas: physical geography, economic or social geography, and regional geography	22
Total	32

TEACHER EDUCATION MINOR

See page 118, at least	20

TEACHER EDUCATION MINOR IN GEOGRAPHY

REQUIRED COURSES	HOURS
Introduction to physical geography	4
Introduction to human geography	4
Scope and methods of geography	2
Geography electives: selected in consultation with the adviser and including at least one course in each of the following areas: physical geography, economic or social geography, and regional geography	15
Total	25

CURRICULUM PREPARATORY TO THE TEACHING OF MATHEMATICS

For the degree of Bachelor of Science in the Teaching of Mathematics

This curriculum offers training for teachers of high school and junior college mathematics. A minimum of 120 hours of credit, excluding military training, is required for graduation.

GENERAL EDUCATION REQUIREMENTS

Forty-six to 50 hours in general education courses. (See page 335.) Students pursuing this curriculum may satisfy the natural science requirement by either a minimum of 6 hours in biological sciences or a minimum of 6 hours in physics including L.A.S. 140-141. Courses in physics or L.A.S. 140-141 are preferred.

PROFESSIONAL EDUCATION REQUIREMENTS

Twenty hours in professional education courses. (See page 335.)

REQUIREMENTS OF THE MAJOR	HOURS
Calculus and analytic geometry (completed through multiple integrals and infinite series)	13
Linear transformations and matrices (linear algebra)	3
Selected topics for secondary school teachers (Math. 305 and 306)	6
Topics on geometry (Math. 302)	3
Advanced aspects of Euclidean geometry (Math. 303)	3
Abstract algebra (Math. 317)	3
Real variable theory (Math. 344 or 347)	3
Computer science	3
Total	37

TEACHER EDUCATION MINOR IN MATHEMATICS

REQUIRED COURSES	HOURS
Calculus and analytic geometry (completed through multiple integrals and infinite series)	13
Topics on geometry (Math. 302)	3
Selected topics for secondary school teachers (Math. 305)	3
Elective — with one of the following preferred — advanced aspects of Euclidean geometry, abstract algebra, linear algebra, real variable theory, computer science	3
Total	22

COMBINED SCIENCES AND LETTERS – EDUCATION PROGRAM FOR MATHEMATICS TEACHERS

For the degree of Bachelor of Arts or Bachelor of Science

This program leads to the degree of Bachelor of Arts, or Bachelor of Science, with a major in mathematics. A student must maintain a 4.0 (A=5.0) grade-point average in mathematics and a 3.75 all-University grade-point average to remain in the program. All requirements for the sciences and letters curriculum must be met. (See page 289.) A total of 120 hours, excluding military training, is required for graduation.

GENERAL EDUCATION REQUIREMENTS

Fifty-two to 59 hours in general education courses. (See page 335.) Students in this curriculum are required to take at least 6 hours in biological sciences and at least 6 hours in physics courses using techniques of the calculus. (Phycs. 106, 107 meet the physics requirement.)

PROFESSIONAL EDUCATION REQUIREMENTS

Twenty hours in professional education courses. (See page 335.)

REQUIREMENTS OF THE MAJOR	HOURS
Calculus and analytic geometry (completed through multiple integrals and infinite series)	13
Abstract algebra (Math. 317)	3
Linear transformations and matrices (Math. 318 — Linear Algebra)	3
Selected topics for secondary school teachers (Math. 305 and 306)	6
Topics on geometry (Math. 302)	3
Advanced aspects of Euclidean geometry (Math. 303)	3
Real variable theory (Math. 344 or 347)	3
Computer science	3
Two 300-level courses in theoretical mathematics excluding Math. 317, 318, 344, or 347	6
Total	43

REQUIREMENTS OF THE MINOR

Each candidate must complete a minor consisting of 20 hours in one or two of the following subjects with at least 8 hours in each if two are chosen: accountancy, astronomy, biology, chemistry, economics, English, finance, foreign language, geography, history, philosophy, physics, political science, psychology, and sociology. In particular, the requirement

for a minor can be satisfied by a teacher education minor as described on page 118 in one of the following fields: accountancy, biology, chemistry, economics, education, foreign language, physics, physical science, and social studies.

CURRICULUM PREPARATORY TO THE TEACHING OF PHYSICS

For the degree of Bachelor of Science in the Teaching of Physics

This program is for students preparing to teach physical science. A minimum of 126 hours of credit, excluding military training, is required for graduation.

GENERAL EDUCATION REQUIREMENTS

Forty to 42 hours of general education courses. (See page 335.) The requirement in natural sciences is fulfilled by teaching major requirements.

PROFESSIONAL EDUCATION REQUIREMENTS

Nineteen hours of professional education courses. (See page 335.)

REQUIREMENTS OF THE MAJOR	HOURS
General chemistry	8
Mathematics	
Calculus and analytic geometry	16
Differential equations and orthogonal functions	3
Total	19
Physics	
General physics	12
Atomic physics and quantum theory	3
Electricity and magnetism (300 level)	5
Physics of light (300 level)	4
Electives in physics	8
Total	32
Total	59

REQUIREMENTS OF THE TEACHER EDUCATION MINOR	
See page 118, at least	20

TEACHER EDUCATION MINOR IN PHYSICS

REQUIRED COURSES	HOURS
General physics and advanced physics	18
General chemistry	8
Total	26

TEACHER EDUCATION MINOR IN PSYCHOLOGY

A minimum of 22 hours in psychology with at least one course (a minimum of 3 hours) in each of the following areas: introductory psychology; statistics; personality — developmental, experimental, and social. It is strongly recommended that the additional hours include courses dealing with methods of research in psychology.

CURRICULUM PREPARATORY TO THE TEACHING OF SOCIAL STUDIES

For the degree of Bachelor of Arts in Teaching Social Studies

A minimum of 120 hours, excluding military training, is required for graduation. This curriculum prepares its graduates for teaching social studies in secondary schools. The choice of options will be determined in consultation with the faculty adviser for this curriculum.

GENERAL EDUCATION REQUIREMENTS

Forty-six to 50 hours in general education courses. (See page 335.)

PROFESSIONAL EDUCATION REQUIREMENTS

Nineteen hours in professional education courses. (See page 335.)

REQUIREMENTS OF THE MAJOR AND MINOR	HOURS
Option A	
History courses	20
Survey of non–American history	8
United States history (advanced hours)	6
European or non–Western history (advanced hours)	6
One course chosen from each of four fields (anthropology, economics, geography, political science, psychology, sociology) with a concentration of 8-9 hours in two	22-24
Teacher education minor in an approved teaching field outside the social studies area	20-24
Total in option A	62-68
Option B	
History courses	20
Survey of non–American history	8
United States history (advanced hours)	6
European or non–Western history (advanced hours)	6
Concentration in two social studies fields other than minor field	16-18
Minor within the social studies area (anthropology, economics, geography, political science, psychology, sociology)	20
Total in option B	56-58

TEACHER EDUCATION MINOR IN SOCIAL STUDIES

For a *minor in social studies, other than history,* a student must complete at least 8 hours of work in each of two of the following subjects: economics, geography, political science, sociology. The minimum total required for a minor is 24 hours.

For a *minor in history* a student must complete 5 to 6 hours in advanced courses in American history, 8 hours in general European history, and 2 or 3 hours in one of the following: ancient, English, medieval, or Latin American history. The minimum total required for a minor is 24 hours.

CURRICULUM PREPARATORY TO THE TEACHING OF SPEECH

For the degree of Bachelor of Arts in the Teaching of Speech

This program is designed to give the teacher a foundation in the areas of public speaking, communication, and theatre arts. A minimum of 128 hours of credit, excluding military training, is required for graduation.

GENERAL EDUCATION REQUIREMENTS

Forty-nine to 53 hours in general education courses. (See page 335.) The humanities requirement is fulfilled by 9 hours (required) of electives in literature.

PROFESSIONAL EDUCATION REQUIREMENTS

Twenty hours in professional education courses. (See page 335.)

REQUIREMENTS OF THE MAJOR	HOURS
Principles of effective speaking	3
Oral interpretation	3
Fundamentals of acting	3
Advanced public speaking	3

Elements of stagecraft	4
General phonetics	3
Group discussion and conference leadership	3
Directing	3
Speech and hearing problems in the classroom	3
Physiological aspects of speech	4
Total	32

REQUIREMENTS OF THE TEACHER EDUCATION MINOR

See page 118, at least	20

TEACHER EDUCATION MINOR IN SPEECH

REQUIRED COURSES	HOURS
Principles of effective speaking	3
Advanced public speaking: the logical bases of discourse	3
Oral interpretation	3
Fundamentals of acting	3
Dramatics for teachers	3
Speech for teachers	3
General phonetics	3
Speech electives	3
Total	24

CURRICULUM IN SPEECH AND HEARING SCIENCE

For the degree of Bachelor of Science in Speech and Hearing Science

The curriculum in speech and hearing science is a preprofessional degree program. The curriculum is designed to prepare students to enter professional training at the graduate level in any major graduate program in speech pathology or audiology. Students who desire certification for work in the public schools can fulfill certification requirements by meeting entrance requirements for the Graduate College and completing the Master of Science degree. To qualify for registration in courses specified for the first semester of the senior year the student must have a grade-point average of no less than 3.65 (A = 5.0). The degree requires at least 128 hours, excluding military training.

For those not wishing to pursue teacher certification, please refer to the curriculum for the degree of Bachelor of Arts in Speech and Hearing Science on page 334.

GENERAL EDUCATION REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective	6-7
Biological science	6-8
Physical science	6-8
History of the United States[1]	3
American government (state and federal constitutions)[1]	3
Foreign language	16
Health and/or physical education	3
Humanities	6
Total	49-54

[1] Students not planning to fulfill teacher certification requirements for the school speech and hearing science program by completing the Master of Science degree may substitute an approved social science sequence for history of the United States and American government.

PROFESSIONAL EDUCATION

Students planning to pursue the school speech and hearing program are advised to elect education as the minor. The following are *recommended.*

	HOURS
Exceptional children	3
Classroom problems in childhood education and special education	2
Mental and educational measurement of exceptional children	3
Total	8

REQUIREMENTS FOR THE MAJOR

Psychology:	HOURS
Statistical thinking in psychology	3
Child psychology or child development	3
Psychology of personality	3
Psychology of learning	3
Total	12
Speech and hearing science:	
Voice and articulation	2
Principles of effective speaking	3
Survey of historical and professional aspects of speech pathology and audiology	2
Introduction to physiological phonetics	3
Speech science	8
Develpment of spoken language	3
Hearing science	3
Speech pathology	6
Psychological appraisal in speech pathology and audiology	3
Introduction to hearing disorders	3
Audiometry	3
Aural rehabilitation	3
Basic diagnostic and therapeutic principles of speech correction	3
Practicum in speech diagnosis and therapy	3
Total	48

REQUIREMENTS OF THE MINOR

Recommended minor areas include: psychology, education, mathematics, physiology, linguistics, psycholinguistics, and education of the deaf.

Preprofessional Health Programs

ACADEMIC ADVISING

The School of Life Sciences, 393 Morrill Hall, is responsible for academic advising of students in the following preprofessional curricula: medical dietetics, medical laboratory sciences, medical records administration, predentistry, prepharmacy, and prephysical therapy. All questions about the academic program should be directed to this office.

PROFESSIONAL SCHOOL ADVISING

The Health Professions Information Office, University of Illinois at Urbana-Champaign, is located in 2 Student Services Building, 610 East John Street, Champaign, Illinois 61820. The faculty views the mission of this office as being fourfold: 1) to provide an opportunity for students interested in the health professions to assemble a confidential file of faculty letters of evaluation, 2) to provide for both students and faculty a resource center for information concerning careers in the health professions, 3) to provide an opportunity for deans and admissions officers to visit this campus to interview prospective applicants and to acquaint students with the unique

educational features that characterize their institutions, and 4) to provide personal and individual career counseling and guidance for those students interested in pursuing a recognized health profession.

The office will act as a clearinghouse to supply students with standard faculty evaluation forms by which they may secure letters of evaluation from the faculty at any time during their college career. This office will keep these letters in a confidential file and will duplicate and forward them, unedited, along with a summary evaluation letter written by a health professions counselor. The request for a summary letter to be written is optional.

Because of the large number of students applying to professional schools from the University, it is essential that each student join in the responsibility for compiling the information upon which his evaluation will be based. Students desiring to utilize this office in application to professional schools will be assigned a registrant folder and will be asked to supply essential biographical data. It is not necessary to use this service but it can save students, instructors, and advisers a great deal of duplicated effort. Also it enables students to solicit letters while the evaluator's impression is fresh. All professional schools require letters of evaluation.

TRANSFER CREDIT FROM PROFESSIONAL SCHOOLS

If a student has satisfied both college and major or concentration residency requirements, it is possible to transfer basic medical science credit satisfactorily completed at a fully accredited medical or dental school for courses acceptable to the major or field of concentration and to apply that credit to the requirements for the baccalaureate degree from the College of Liberal Arts and Sciences. The amount of transfer credit will not exceed 30 semester hours, and duplication of courses completed on this campus will not be permitted. Credit will be counted only upon completion of one year's professional study.

Students planning to complete their baccalaureate degree requirements by attendance at a medical or dental school must obtain an evaluation of credit *before* attending that school. Because it is quite possible that less than the maximum amount of credit may be acceptable as transfer credit, it is essential that students consult their admissions and records officer in the college office as early as possible.

If there is any question whether or not a course meets the criteria for acceptability or the amount of credit to be granted, the student will be responsible for providing the necessary information upon which the head of the appropriate department (or his designate) on this campus will make a recommendation to the college regarding the acceptance of credit. Final determination of the credit will be made by the dean of the College of Liberal Arts and Sciences or his designate.

Effective August 1975 and thereafter, the prior agreement regarding transfer credit from professional schools must be included in the student's field of concentration contract form.

PREPROFESSIONAL TRAINING

Because of the very large number of students interested in the health and allied health professions and the limited number of spaces in professional schools, the competition for admission to professional programs is very severe. In reality, those admitted to professional programs have academic records well above the stated minimum requirements. It is, therefore, extremely important for students at the preprofessional level to plan for alternative career goals. It is advisable to be enrolled in a degree program in order to fulfill requirements for a bachelor's degree and the requirements for the desired health or allied profession simultaneously. By doing this, students who are not successful in gaining admission to a professional program may complete a degree without prolonging study beyond eight semesters.

The preprofessional requirements given below for the various health curricula are those specified for admission to professional programs at the University of Illinois at the Medical Center. They are typical for most professional programs, but it is essential that students learn the specific requirements of all schools to which they may apply.

MEDICAL DIETETICS

Minimum requirements for admission are 60 semester hours, exclusive of physical education and military science, with at least a 3.0 (A = 5.0) grade-point average in the following:

Rhetoric or verbal communication: 2 semesters. Recommended: Sp. Com. 111 and 112, or Rhet. 105 and Sp. Com. 101.
Biological sciences: One year of biology and one course in microbiology. Recommended: Biol. 110 and 111 and Mcbio. 100.
Physical sciences: Chemistry through organic with laboratory. Recommended: Chem. 101, 102 both with laboratory, 131 and 134.
Mathematics: College algebra (Math. 112 or equivalent).
Humanities: An approved general education sequence.
Social sciences: An approved general education sequence.
Economics: One course. Recommended: Econ. 101.
Electives: To complete a total of 60 semester hours. Recommended: Anth. 103, 174, and 371, Psych. 201 and 250, Math. 120, Soc. 225, and foreign language.

Note: If a student must delay enrolling in Chemistry 101 until the spring semester, it will be necessary to attend summer school to complete chemistry and biology requirements in two years.

MEDICAL LABORATORY SCIENCES

Minimum requirements for admission are 60 semester hours, exclusive of physical education and military science, with at least a 3.5 (A = 5.0) grade-point average in the following:

Rhetoric: One semester.
Mathematics (to fulfill prerequisite for chemistry): Math. 112.
Chem. 101, 102 both with laboratory; 122, 131, and 134.
Biological sciences: Biol. 110 and 111.
Humanities: An approved general education sequence.
Social sciences: An approved general education sequence.
Electives: To complete a total of 60 semester hours. Recommended: Math. 120 and a foreign language.

Note: If a student must delay enrolling in Chemistry 101 until the spring semester, it will be necessary to attend summer school to complete chemistry and biology in two years.

MEDICAL RECORDS ADMINISTRATION

Minimum requirements for admission are 90 semester hours, exclusive of physical education and military science, with at least a 3.0 (A = 5.0) grade-point average in the following:

Rhetoric: Two semesters. Recommended: Sp. Com. 111 and 112, or Rhet. 105 or 108 and B.&T.W. 251.
Biological sciences: Three courses — Physl. 103 and 234 required. Mcbio. 113 recommended.
Physical sciences: An approved general education sequence.
Humanities: An approved general education sequence.

Social sciences: An approved general education sequence. Recommended: Psychology or sociology.
Electives: To complete a total of 90 semester hours. Recommended: B. Adm. 247, H. Ed. 110 and 216, Psych. 201 and 245, Soc. 184 and 185.

PREPROFESSIONAL REQUIREMENTS FOR DENTISTRY

Preprofessional training for dentistry is basically a three-year program, although 60 to 70 percent of the students being admitted to dental schools have a bachelor's degree. It is advisable, therefore, to complete the requirements for admission to dental school in conjunction with fulfilling requirements for a bachelor's degree.

It is essential that a student knows the specific requirements for admission to each of the dental schools to which he or she plans to apply. These requirements are listed in the *Admission Requirements of the American Dental Schools,* published by the American Association of Dental Schools, 1625 Massachusetts Avenue, N.W., Washington, D.C. 20036.

All U.S. and Canadian dental schools require: 1) That all applicants take the Dental Admissions Test (DAT) as recommended and approved by the American Dental Association. For information concerning the test write to the Division of Educational Measurements, American Dental Association, 211 East Chicago Avenue, Chicago, Illinois 60611. The application forms can also be obtained from the Health Professions Information Office, 2 Student Services Building. 2) Letters of evaluation from all applicants. 3) An interview may be requested by the committee on admissions. The American Association of Dental Schools sponsors a centralized application service (AADSAS). Application request cards can be obtained through the Health Professions Information Office, 2 Student Services Building, or by writing AADSAS, P.O. Box 1003, Iowa City, Iowa 52240.

Courses should include:

Rhetoric: Two semesters. Recommended: Sp. Com. 111 and 112, or Rhet. 105 or 108, and 133.
Mathematics (prerequisites for chemistry and physics): Math. 112 and 114.
Chem. 101, 102 both with laboratory; 131, 134, and 122 or 336 or Bioch. 350.
Biol. 110 and 111.
Phycs. 101-102 or 106-108.
Humanities: An approved general education sequence.
Social sciences: An approved general education sequence.
Electives: Foreign language, Math. 120, social sciences, and humanities beyond the minimum requirements strongly recommended.

PREPROFESSIONAL REQUIREMENTS FOR MEDICINE

Although a few students are admitted to medical school after three years of preprofessional training, over 95 percent of the students have a bachelor's degree. Therefore, students should pursue study in a degree program. There is no prescribed curriculum for premedical students. The fields of concentration in life sciences, chemistry or biochemistry, and the curriculum in chemical engineering are especially suitable since requirements in these curricula overlap to some extent with medical school requirements. A concentration in psychology or in the humanities or fine arts is acceptable to medical school; in practice, however, it is difficult to concentrate in these areas and fulfill the present medical school requirements, especially if the student plans to apply for entry after three years.

The strong sequential nature of some programs, such as the science departments, requires that appropriate course selections be made in the first year if a sound program is to be achieved. For example, it is important that the entering science-oriented students elect mathematics since calculus is a prerequisite for some courses in chemistry, physics, and the life sciences.

All American and Canadian medical schools require: 1) That all applicants take the Medical College Admission Test (MCAT) as recommended and approved

by the Association of American Medical Colleges. The applicant must have obtained a satisfactory score on the MCAT, which must be taken no later than October of the year prior to enrollment. For information concerning the test, write to Medical Colleges Test, American Testing Program, Box 168, Iowa City, Iowa 52240. The application forms can also be obtained from the Health Professions Information Office, University of Illinois at Urbana-Champaign, 2 Student Services Building, Urbana, Illinois 61801. 2) Letters of evaluation from all applicants. 3) An interview may be requested by the committee on admissions.

The American Association of Medical Schools sponsors a centralized application service, the American Medical College Application Service (AMCAS). Applications are available *only* from AMCAS, Suite 301, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036. Application request cards can be obtained from the Health Professions Information Office, 2 Student Services Building.

Students anticipating a career in medicine are advised to obtain additional information from those medical schools in which they are interested. Specific admission requirements for individual medical schools are listed in *Medical School Admission Requirements,* published by the Association of American Medical Colleges, One Dupont Circle, N.W., Washington, D.C. 20036.

PREPROFESSIONAL NURSING

The University offers a degree program leading to the Bachelor of Science in Nursing for students coming directly from high school or for registered nurses who meet a specific set of requirements. The program is made up of two phases: a preprofessional year in the College of Liberal Arts and Sciences at Urbana-Champaign or at any other accredited college or university, and the professional phase administered by the College of Nursing, University of Illinois at the Medical Center, Chicago. The professional phase of the baccalaureate degree completion program for registered nurses is also offered on the Urbana campus by the College of Nursing.

Graduates of hospital schools of nursing or associate degree nursing programs, are admitted with advanced standing, the exact amount of credit to be granted depending on the nature of the work done, validating examinations, and the quality of performance in sequential courses.

Admission to the professional phase is on recommendation of Admissions Committee of the College of Nursing after completion of the following requirements with an overall grade-point average of 3.5 (A = 5.0) and a minimum grade of C in chemistry and biology courses:

Rhetoric: Rhet. 105 or 108.
Chemistry: Chem. 101 and 102, both with laboratory.
Biological science: Biol. 100. ,
Humanities: 6 hours.
Psych. 100
Soc. 100
Academic electives: 3 hours to complete a total of 31 hours.

For additional information about the programs in nursing, write to the Office of Admissions and Records, 1737 West Polk Street, Chicago, Illinois 60612.

Information regarding the baccalaureate degree completion program for registered nurses may be obtained from the Health Professions Information Office and/or the College of Nursing in the Area Health Education System Office.

PREPHARMACY

Preprofessional training for pharmacy is basically a one-year program. Minimum requirements for admission are 30 semester hours, exclusive of physical education

and military science, with at least a 3.25 (A = 5.0) grade-point average in the following:

Rhetoric: Sp. Com. 111 and 112 preferred, or Rhet. 105 or 108.
Mathematics: Math. 112[1] and 114.
Chemistry: Chem. 101[2] and 102, both with laboratory.
Biological sciences: 8 semester hours. Recommended: Bot. 100 and Physl. 103.
Electives: To complete a total of 30 semester hours. Recommended: Social sciences and humanities to expand cultural background.

[1] If student places into Math. 112, he or she should request approval of the chemistry department to take Chem. 101 concurrently with Math. 112.

[2] If student must delay enrolling in Chem. 101 until second semester of freshman year, it will be necessary to attend summer school to complete chemistry in one year.

PREPHYSICAL THERAPY

Preprofessional training for physical therapy is a two-year program. Minimum requirements for admission are 60 semester hours, exclusive of military service, with at least a 3.25 (A = 5.0) grade-point average in the following:

Rhetoric: One semester.
Mathematics: Math. 112 and 114.
Chemistry: Chem. 101 and 102, both with laboratory.
Biology: Biol. 110 and 111.
Psychology: Psych. 100 or 103 or 105, and 216 and 338.
Physics: Phycs. 101 and 102.
Physical Education: Two courses. Recommended: P.E. 100.
Humanities: An approved general education sequence.
Electives: To complete a total of 60 semester hours. Recommended: Anthropology, health education, additional psychology and sociology.

Note: If a student must delay enrolling in Chem. 101 until second semester of freshman year, it will be necessary to attend summer school to complete chemistry and biology requirements in two years.

PREPROFESSIONAL REQUIREMENTS FOR VETERINARY MEDICINE

Students wishing to complete the preprofessional requirements for veterinary medicine in the College of Liberal Arts and Sciences may do so within a variety of curricula. However, courses required are equivalent to those recommended for students majoring in the biological sciences, and especially in the life sciences field of concentration. See page 312.

Because of the very severe competition for admission, students should plan to complete a bachelor's degree program. For fall 1974 there were approximately six qualified applicants for each space available in the entering class in veterinary medicine. This represented a one-third increase of qualified applicants over the previous year. The mean grade-point average of admitted students was 4.54 (A = 5.0).

Specific information about veterinary medicine, including admission requirements, may be found beginning on page 381.

OCCUPATIONAL THERAPY

This program, which is open to both men and women, combines six semesters of work in the College of Liberal Arts and Sciences at Urbana-Champaign with five quarters in the School of Associated Medical Sciences, College of Medicine, University of Illinois at the Medical Center, Chicago.

The courses required on the Urbana-Champaign campus are the basis for professional development. The student must accumulate a minimum of 90 semester hours, a 3.5 (A = 5.0) cumulative grade-point average, and satisfy all of the basic requirements before transferring to the College of Medicine. Further information may be obtained from the occupational therapy offices either on the Urbana-Champaign campus or on the Medical Center campus, or from the Health Professions Information Office on the Urbana-Champaign campus. Admissions information may be found on page 48.

REQUIREMENTS

Behavioral sciences: 12 hours. Psychology: general and abnormal; human development — Introduction to Human Development and Observation and Analysis of Behavior (child psychology and an additional psychology course may be substituted).
Social sciences: 12 hours of an approved combination of sociology, anthropology, economics, and political science.
Biological sciences: Introduction to Human Physiology (Prerequisite: high school chemistry is strongly recommended) and Human Anatomy and Physiology.
Communication skills: Principles of Composition and Voice and Articulation; or Verbal Communication.
Creative media: Fundamentals of Drafting and Drawing; Basic Design; Pottery; Basic Elements of Weaving; Introduction to Woodworking.
Humanities: Approved general education sequence.
Physical education: 4 hours of credit will be accepted toward the total of required 90 semester hours.
Physical sciences: Approved general education sequence.
Professional courses: Occupational Therapy Orientation; Kinesiology; Medical Terminology.
Electives: To complete the required 90 semester hours.

Note: Exceptions to any of the above may be made on an individual basis by the director of the curriculum.

GRADUATE SCHOOL OF LIBRARY SCIENCE

University of Illinois at Urbana-Champaign
329 Library
Urbana, IL 61801

Although the Graduate School of Library Science is a graduate professional school, it offers a series of courses at the undergraduate level. These courses may be taken as electives, or as a minor in the College of Liberal Arts and Sciences or in the College of Education. These courses serve two purposes: to give the student instruction in the fundamental principles and practices of librarianship providing the basic preparation for his professional studies in a fifth year, and to give prospective school librarians the basic preparation necessary to meet certification requirements for school library work and to qualify as instructional materials specialists. These same courses also may be taken as electives by students in other colleges.

A sound, well-balanced intellectual background is needed for a career in library work. By its nature, the work of the librarian is far-ranging and encyclopedic in subject coverage, even in the most highly specialized libraries. History, literature, the social sciences, the natural sciences, and foreign languages are all valuable to the prospective librarian.

In addition to a broad general education, the student should develop a strong major in some subject area during his last two years of undergraduate work or in graduate study. Such subjects as chemistry, physics, mathematics, education, engineering, law, agricultural sciences, art, and history are particularly needed in modern library development and, when combined with library training, lead to a great variety of interesting, well-paying library positions.

The knowledge of foreign languages which the student should acquire before entering the Graduate School of Library Science varies with the type of library work in which he is interested. For bibliographical work, reference, cataloging, and most types of work in college, university, and other scholarly libraries, a reading knowledge of at least two modern foreign languages is desirable.

The director of the Graduate School of Library Science is glad to answer any inquiries from students who choose library science as a minor, regarding the type of preprofessional education best suited to their particular needs and interests.

TEACHER EDUCATION MINOR IN LIBRARY SCIENCE

The Graduate School of Library Science has offered courses for advanced undergraduates in the College of Liberal Arts and Sciences who wish to qualify both as classroom teachers and as librarians in small elementary, junior high, and senior high schools, or as assistant librarians in large schools. Full professional training leading to a master's degree in library science is required of those who wish to prepare for positions in large schools, for supervisory positions in the school library field, and for positions as instructional materials specialists.

This program is presently undergoing a major reorganization. Students interested in this program should contact the director of the Graduate School of Library Science, 329 Library.

GRADUATE WORK

For information about the graduate programs in library science, see the announcements of the Graduate School of Library Science and the Graduate College, or write to the Director, Graduate School of Library Science, 329 Library, Urbana, Illinois 61801.

COLLEGE OF PHYSICAL EDUCATION

University of Illinois at Urbana-Champaign
107 Huff Gymnasium
Champaign, IL 61820

The College of Physical Education, first established as the School of Physical Education in 1932, became a college in 1957 and currently has three academic departments and two nonacademic divisions: the Departments of Health and Safety Education, Physical Education, and Recreation and Park Administration; and Divisions of Campus Recreation and Rehabilitation-Education Services.

All departments offer the Bachelor of Science, Master of Science, and Doctor of Philosophy degrees. The Departments of Health and Safety Education and Physical Education offer opportunities for specialization in teaching. All departments provide opportunity for specialization in leadership, administration, research, and scholarship.

Any student may enroll in physical education activities courses. Credit earned may be counted toward graduation and included in the student's grade-point average at the discretion of his college. Students enrolled in teacher education programs are required to obtain a minimum of 3 semester hours credit in health and/or physical education. Students in the College of Physical Education are required to obtain 4 semester hours of credit in physical education.

This college, in cooperation with the College of Agriculture, provides a statewide consultant service through the Office of Recreation and Park Resources to assist municipalities, agencies, and rural and urban groups in initiating new programs and developing existing recreation and park programs, facilities, and resources, including farm recreation enterprises.

DEPARTMENTS AND DIVISIONS

The Department of Health and Safety Education operates the Safety and Driver Education Laboratory, the Health and Safety Education Materials Laboratory, and the Health Education Research Laboratory

The Department of Physical Education operates the Physical Fitness Research Laboratory, the experimental sports fitness day-school for boys, the Sports Psychology Research Laboratory, the Exercise Therapy Clinic, the Biomechanics Laboratory, and the Motor Learning and Development Lab.

The Physical Fitness Laboratory is open to anyone who wishes to improve his physical fitness through exercise. The Exercise Therapy Clinic is open to convalescent or physically handicapped persons. Service in these units is available to students, faculty, staff, and others upon recommendation of a medical doctor.

The Department of Recreation and Park Administration operates the Leisure Behavior Research Laboratory and carries on work in the Motor Performance and Play Research Laboratory of the Children's Research Center.

The Division of Rehabilitation-Education Services specializes in the needs of permanently, severely physically handicapped students. It is concerned with their counseling, housing, eating, recreation, and transportation.

The Division of Campus Recreation provides competitive programs in twenty-one sports for students, faculty, and staff.

SPECIAL PROGRAMS

Recreation and Park Administration in the British Isles

A semester abroad in the British Isles for approximately 16 semester hours of credit may be offered to students pursuing a major course of study in recreation and park administration. Students normally go abroad during the spring of their third year of course work.

Additional information about the program may be obtained from the Department of Recreation and Park Administration, University of Illinois at Urbana-Champaign, 104 Huff Gymnasium, Champaign, Illinois 61820.

International Exchange Program in Finland and Germany

The College of Physical Education offers juniors a two-semester program in physical education, health education, and recreation at the University of Jyvaskylo in Finland and at the Deutsche Sporthochschule in Germany. Full credit is received for participation in the program and overall costs are slightly less than a year at a comparable U.S. institution. Interested students should contact the Department of Physical Education, University of Illinois at Urbana-Champaign, Freer Gymnasium, Champaign, Illinois 61820.

HONORS PROGRAMS

Honors at Graduation

At graduation, the College of Physical Education grants honors to superior students. To be eligible, students must have completed a minimum of four semesters of work or 65 hours of credit in residence at the University and be recommended by the faculty. For the degree with Honors, the student must have a grade-point average of 4.25 (A=5.0) or better in all courses used for graduation; for the degree with High Honors, a grade-point average of 4.5 or better; and for the degree with Highest Honors, a grade-point average of 4.75 or better.

Awards

Alpha Sigma Nu Key. Each semester, Alpha Sigma Nu, physical education honorary for women, selects junior and senior men and women with an all-University grade-point average of 4.0 or higher who are active participants in and have given outstanding service and leadership in physical education activities and organizations. These students are awarded keys and their names are inscribed on a plaque in Freer Gymnasium.

Charles K. Brightbill Memorial Award. A cash award and an engraved paperweight are presented annually to a senior in the curriculum in recreation and park administration. The recipient is selected by a faculty committee on the basis of scholarship, personality, leadership, and character.

Delta Theta Epsilon Award. A trophy is awarded annually by Delta Theta Epsilon, honorary physical education fraternity, to a senior in the curriculum in physical education for men. Character, scholarship, personality, and ability as a teacher are considered by the faculty committee when making the award.

C. O. Jackson Award. An annual award by Rho chapter of Phi Epsilon Kappa in honor of Professor Emeritus C. O. Jackson is made to the outstanding senior in physical education for men. The name of the recipient is inscribed on a plaque in Huff Gymnasium.

Phi Epsilon Kappa Key. A key is awarded annually by Phi Epsilon Kappa, the only national honorary fraternity for physical education, to the senior in the curriculum in physical education for men with the highest all-University grade-point average.

GENERAL EDUCATION SEQUENCE REQUIREMENTS

To comply with the general education requirements effective for students, the College of Physical Education requires that each student must have a minimum approved sequence of 6 semester hours each in the humanities, the social sciences, and the natural sciences. A list of the sequences approved by the college may be obtained from the college office, 107 Huff Gymnasium.

Curricula

CURRICULUM IN HEALTH AND SAFETY EDUCATION

For the degree of Bachelor of Science in Health and Safety Education

The Department of Health and Safety Education offers a bachelor's degree in four options: school health education, community health education, school safety education, and public safety education. These curricula are open to both men and women. While all options require 130 hours for graduation, including 4 hours of physical education, each is individualized to its own specialty.

Students selecting the school health education or the school safety education option must meet teacher education requirements including extensive practicum in teacher observation and student teaching. Students selecting the community health education or public safety education options are required to take a field work course during their junior or senior year.

For teacher education requirements applicable to all curricula, see pages 116 to 119.

New laws in Illinois have opened up the employment horizons in school health and safety areas. Federal legislation has increased the demand for students qualified

in public safety. New emphasis in public health care on the part of governments at all levels has made a community health background highly desirable. For further information on the fastest growing fields in the nation, write to the Department of Health ar l Safety Education, University of Illinois at Urbana-Champaign, 117 Huff Gyr nasium, Champaign, Illinois 61820.

School Health Education Option

GENERAL REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective	6-7
Natural sciences	14
Physical sciences	6-8
Social sciences	17-21
History of the United States	3-4
American government (state and federal constitutions)	3
Physical education	4
Humanities	6
Total	59-67

PROFESSIONAL EDUCATIONAL REQUIREMENTS	
History and philosophy of education (educational policy studies)	3
Educational psychology	3
Principles of education	2
Techniques of teaching	3
Educational practice	11-13
Total	22-24

HEALTH EDUCATION SPECIALTY REQUIREMENTS	
Health and modern life	3
Public health	4
Nutrition	3
Mental health	2-3
Disease	2
Organization of school health programs	3
Principles of health education	3
Emergency care procedures	2
General safety education	3
Education for human sexuality	5
Drug abuse education	2
Evaluation in health and safety	4-6
Child development	4
Total	40-43

ELECTIVES	
To yield a total of no less than	130

Community Health Education Option

GENERAL REQUIREMENTS	HOURS
Sp. Com. 111, 112, 113, or Rhet. 105 and Sp. Com. 113, or Rhet. 108 and Sp. Com. 113	7
Natural sciences	14
Physical sciences	6-8
Social sciences	21
Physical education	4
Humanities	6
Total	58-62

HEALTH EDUCATION SPECIALTY REQUIREMENTS	
Health and modern life	3
Public health	8
Nutrition	3

Mental health 2-3
Disease 2
Organization of school health programs 3
Principles of health education 3
Emergency care procedures 2
General safety education 3
Education for human sexuality 2
Drug abuse education 2
Evaluation in health and safety 4-6
Total 37-40

ALLIED SUPPORTING REQUIREMENTS

Educational psychology 3
Processes and systems of communication 3
Report writing 3
Radio and television 6
Total 15

ELECTIVES

To yield a total of no less than 130

School Safety Education Option

GENERAL REQUIREMENTS **HOURS**

Sp. Com. 111 and 112, or Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective 6-7
Natural sciences 11
Physical sciences 6-8
Social sciences 14
History of the United States 3-4
American government (state and federal constitution) 3
Physical education 4
Humanities 6
Total 53-57

PROFESSIONAL EDUCATIONAL REQUIREMENTS

Foundations of American Education (educational policy studies) 3
Educational psychology 3
Principles of education 2
Techniques of teaching 3
Educational practice 11-13
Total 22-24

SAFETY EDUCATION SPECIALTY REQUIREMENTS

Health and modern life 3
Public health 2
Nutrition 3
Mental health 2-3
Organization of school health programs 3
Emergency care procedures 2
Safety and driver education 12
Evaluation in health and safety 4-6
Total 31-34

ALLIED SUPPORTING REQUIREMENTS

Safety engineering 6
Industrial safety 3
Highway traffic characteristics 3
Total 12

ELECTIVES

To yield a total of no less than 130

Public Safety Education Option

GENERAL REQUIREMENTS	HOURS
Sp. Com. 111, 112, 113, or Rhet. 105 and Sp. Com. 113, or Rhet. 108 and Sp. Com. 113	7-9
Natural sciences	14
Physical sciences	6-8
Social sciences	17
Physical education	4
Humanities	6
Total	54-58

SAFETY EDUCATION SPECIALTY REQUIREMENTS	
Health and modern life	3
Public health	2
Nutrition	3
Mental health	2-3
Emergency care procedures	2
Safety and driver education	14
Evaluation in health and safety	4-6
Total	30-33

ALLIED SUPPORTING REQUIREMENTS	
Safety engineering	6
Industrial safety	3
Highway traffic characteristics	3
Communications and radio-television	6
Report writing	3
Industrial psychology	3
Economics	3
Business and professional speaking	2
Total	29

ELECTIVES	
To yield a total of no less than	130

TEACHER EDUCATION MINOR IN HEALTH EDUCATION

REQUIRED COURSES	HOURS
Public health	2
First aid	2
Organization of school health programs	3
Sex education and family life	2
Principles of health education	3
Introduction to human physiology	4
Electives	6-7
Minimum total	22

ELECTIVES	
Man and his diseases, or concepts of health, aging, and longevity	2
Public health statistics	2
Mental health, or psychology of personality	2-3
Principles of nutrition	2-3
Physical growth and nutrition	2
Drug abuse education	3
Quantitative methods in ergonomics	4
Safety education	3
Total	17

TEACHER EDUCATION MINOR IN SAFETY AND DRIVER EDUCATION

REQUIRED COURSES	HOURS
First aid	2
Safety education	3
Driver education	3
Advanced traffic safety education	3
Electives	6

ELECTIVES

Highway traffic characteristics	3
Organization of school health programs	3
Sex education for teachers	3
Problems in safety engineering	3
Industrial fire protection	3
American government: organization and powers	3

CURRICULUM IN PHYSICAL EDUCATION

For the degree of Bachelor of Science in Physical Education

This curriculum is designed to allow students to develop a course of studies, in consultation with an adviser, that would prepare them for professional work in either public or nonpublic agencies. In addition, this major provides a foundation for graduate study in physical education. The 128 hours required for graduation include prescribed courses for all students as well as requirements determined by the various areas of concentration. The first two years of this curriculum provide a foundation for the various areas of concentration as well as allowing for some variation according to the interests of individual students. The courses for the third and fourth year are largely determined by the area of concentration selected. Students who desire teacher certification can satisfy the necessary requirements by appropriate selection of courses within the major and correlate areas. For teacher education requirements applicable to all curricula see pages 116 to 119.

GENERAL EDUCATION REQUIREMENTS FOR ALL STUDENTS	HOURS
Humanities	6
Language arts	8-9
Sp. Com. 111 and 112 (6) or	
Rhet. 105 or 108 and a speech performance elective (6-7)	
Language arts electives (2-3)	
Mathematics[1]	3
Natural sciences	9
General physiology (4)	
Physl. 234 (5)	
Social sciences	9
General psychology[2] (3)	
American government (state and federal constitutions)[2] (3)	
History of the United States[2] (3)	
Electives (must be selected from the five areas listed above or foreign languages)	21-22
Total	57

[1] Proficiency level of college algebra is required (Math. 111 or 112). May be satisfied by appropriate score on Mathematics Placement Test.

[2] Required for all students enrolled in teacher education correlate areas.

PROFESSIONAL CORE REQUIREMENTS FOR ALL STUDENTS	HOURS
P.E. 239 — Performance and Analysis of Physical Activities	3
P.E. 240 — Social Scientific Bases of Sport	3
P.E. 250 — Bioscientific Foundations of Man Moving	3
P.E. 260 — Physical Education as a Profession	2
P.E. 270 — Principles of Evaluation and Assessment	3
Select one course from the supervised experiences sequence (P.E. 285, 286, 287)	3
Select two courses from the physical education activities sequence (P.E. 100-238)	2
Total	19

Areas of Concentration

Each student will declare an area of concentration within physical education no later than the first semester of the junior year. The areas of concentration are as follows: motor development, motor performance and sport, and social science of sport. See specifics below.

MOTOR DEVELOPMENT

P.E. 262 — Motor Development in Childhood	3
Select 9 hours from the following	9
P.E. 282 — Psychology of Learning and Teaching P.E. (3)	
P.E. 349 — Analysis of Small Groups in Play and Sport (3)	
P.E. 354 — Growth and Physical Development of Children (3)	
P.E. 355 — Kinesiology (3)	
Select 4 hours of activities appropriate to motor development from the physical education activities sequence	4
Select 4 hours from courses numbered P.E. 239 and above	4
Total	20

MOTOR PERFORMANCE AND SPORT

Select 3 hours from the instructional strategies sequence	3
Select 9 hours from the following	9
P.E. 249 — Sport in Modern Society (3)	
P.E. 282 — Psychology of Learning and Teaching Physical Education (3)	
P.E. 352 — Physiology of Physical Activity (3)	
P.E. 355 — Kinesiology (3)	
Select 4 hours of activities at intermediate level or above appropriate to motor performance and sport[3]	4
Select 4 hours from courses numbered P.E. 239 and above	4
Total	20

SOCIAL SCIENCE OF SPORT

P.E. 352 — Physiology of Physical Activity (3) or P.E. 355 — Kinesiology (3)	3
P.E. 282 — Psychology of Learning and Teaching Physical Education (3) or P.E. 296 — Theory of Coaching (2)	2-3
Select 11 hours from the following	11
P.E. 241 — History of Sport (3)	
P.E. 249 — Sport in Modern Society (3)	
P.E. 341 — International Physical Education and Sport (2)	
P.E. 348 — Social Problems Related to Physical Activity and Sport (2)	
P.E. 349 — Small Groups in Play and Sport (2 or 4)	
P.E. 357 — Motor Learning (4)	
Select 3 or 4 hours of activity courses at the intermediate level or above[3]	3-4
Total	20

[3] Students must demonstrate proficiency at the intermediate level in two (2) of the following activity areas: aquatics, dance, gymnastics, individual and dual sports, team sports.

Correlate Areas

Each student will select a correlate area which is a planned program of courses taken outside the department designed to be supportive of the area of concentration. The correlate area may serve as a minor field of study, may satisfy teacher education requirements, or may prepare the student for advanced study. See specifics below.

CORRELATE AREA #1 (TEACHER CERTIFICATION K-14)[4]	HOURS
E.P.S. 201 — Foundations of American Education	3
Ed. Psy. 236 — Child Development for Elementary Teachers or Ed. Psy. 211[5] Educational Psychology	3
El. Ed. 233 — Classroom Programs in Childhood Education or Se. Ed. 240[5] Principles of Secondary School	2
Se. Ed. 241 — Technic of Teaching in the Secondary School	3
Ed. Pr. 238 — Educational Practice for Special Fields in Elementary Schools	4
Ed. Pr. 242 — Educational Practice in Secondary Education	4
Total	19

CORRELATE AREA #2 (TEACHER CERTIFICATION 6-12)[4]	
E.P.S. 201 — Foundations of American Education	3
Ed. Psy. 211 — Educational Psychology	3
Se. Ed. 240 — Principles of Secondary Education	2
Se. Ed. 241 — Technic of Teaching in the Secondary School	3
Ed. Pr. 242 — Educational Practice in the Secondary School	5
Education electives	3
Total	19

CORRELATE AREA #3	
Select one course from growth and development (Psych. 216, Psych. 217, Human Econ. 203)	3-4
Select one course from biological bases (Anth. 143, Psych. 230, Psych. 248)	3
Select one course from research bases (Econ. 171, Math. 161, Psych. 235, C.S. 101, C.S. 201)	3-4
Remaining hours to be selected according to individual student needs and interests	7-9
Total	18

CORRELATE AREA #4	
Any minor field of study appropriate to area of concentration	18
Free electives	13-15
Total	128

[4] Any student desiring to be certified to teach in the public schools must select either the motor development or the motor performance and sport areas of concentration.

[5] Any student desiring to teach at the secondary level with the K-14 Certification may elect Ed. Psy. 211 in place of Ed. Psy. 236, and Se. Ed. 240 in place of El. Ed. 233.

TEACHER EDUCATION MINOR IN PHYSICAL EDUCATION FOR MEN

REQUIRED COURSES	HOURS
Fitness programs	2
Swimming	2
Measurement and evaluation in physical education	3
Kinesiology	3
Human anatomy	5
Professional activities	4
Administration of physical education, or physical education for the classroom teacher	2-3
Prevention and care of athletic injuries, or first aid	2-3
Total	23-25

TEACHER EDUCATION MINOR IN PHYSICAL EDUCATION FOR WOMEN

REQUIRED COURSES	HOURS
Square and ballroom dance	2
Movement fundamentals	1
Individual sports	1
Team sports	2
Health education	5
Elective hours in physical education and dance	4-5
Sequence for elementary school teachers	
Elementary school games, and	3
Physical education for the classroom teacher of physical education in the elementary school	2
Sequence for secondary school teachers	
Teaching sports, and supervised experience; or teaching swimming, and teaching dance and gymnastics; or teaching individual sports, and teaching swimming; or teaching individual sports, and teaching dance and gymnastics	4
Total	20

TEACHER EDUCATION MINOR IN COACHING

REQUIRED COURSES	HOURS
Human anatomy	5
Fitness programs	2
Prevention and care of athletic injuries	3
Theory of coaching	2
Administration of high school programs	3
Professional activities	8
Total	20

CURRICULUM IN RECREATION AND PARK ADMINISTRATION

For the degree of Bachelor of Science in Recreation and Park Administration

The curriculum in recreation and park administration given on the following pages is effective for students entering the College of Physical Education in the fall 1975 semester. Continuing students who entered the college before fall 1973 should consult the 1971-72 *Undergraduate Study* catalog for requirements they must meet.

The curriculum is open to both men and women. A minimum of 132 hours of credit, including 4 semester hours of physical education, is required for graduation. A social science minor of 18 to 23 hours is a part of the general education requirements. Students are required to complete practical field training for a minimum of 800 hours over the period of their matriculation. In addition to general education and the professional core requirements, students must select one of five options including program specialist, recreation and park administration, therapeutic recreation, outdoor recreation, and outdoor interpretive education for a second minor.

Students may enroll, on an elective basis, in two religious foundation courses of their choice.

Students may also elect, in their junior year, to take a semester abroad in the United Kingdom on a contract basis. This program includes both course work and practical field work.

The following are the general education courses (55-66 hours) required of all recreation major students.

General Education

BASIC COURSES	HOURS
Sp. Com. 111 — Verbal Communication	4
Sp. Com. 112 — Verbal Communication	4
B.&T.W. 251 — Business and Administrative Communication, or B.&T.W. 272 — Report Writing, or Rhet. 133 — Principles of Composition	3

Accy. 201 — Fundamentals of Accounting, or Econ. 101 — Introductian to Economics ...3-4
Math. 111 or 112 — College Algebra 3-5
Physical education 4
Total basic caurses 21-24

BIOLOGICAL SCIENCES

Tatal biological science caurses 8

SOCIAL SCIENCES

Group I
Pal. S. 150 — American Gavernment: Organizatian and Pawers, or
Pol. S. 191 — Principles of Palitical Science, and
one other 300-level palitical science course ta be selected with adviser 6-7
Graup II
Sac. 100 — Introductian ta Sociolagy, ar
Anth. 102 — Intraduction ta Anthrapalogy: The Origin af Man and Culture, and
one other sacialagy ar anthropalogy caurse ta be selected with adviser 6-8
Graup III
Psych. 100 — Introductian to Psychalagy, or Psych. 103 — Introductian ta Experimental Psychology, ar Psych. 105 — Elements af Psychalagy, and ane ather caurse in psychology to be selected with adviser 6-8
Total sacial science courses 18-23

HUMANITIES

One caurse in philasaphy ar humanities and any twa ather courses in the humanities .8-12

Professional Core Requirements

PREPROFESSIONAL	HOURS
Rec. 100 — Leisure: Its Uses and Resources	2
Rec. 110 — Faundations far Recreation and Park Services	2
Rec. 140 — Principles af Camping	3
Rec. 180 — Recreation Program Lab I	1
Rec. 181 — Recreation Pragram Lab II	1
Rec. 130 — Introductian to Therapeutic Recreatian	2
Rec. 141 — Introductian ta Outdaar Education and Recreatian	2
Rec. 182 — Basic Recreatian Field Experience	2-4
Tatal	15-17

PROFESSIONAL

Rec. 200 — Leadership in Recreatian and Park Administratian	3
Rec. 210 — Thearies and Methads af Supervisian	3
Rec. 215 — Recreatian Pragram Develapment	3
L.A. 226 — Elements af Park Design	2
Rec. 280 — Prafessianal Seminar	1
Rec. 282, 283 — Field Practicum I and II[1]	8
Rec. 290 — Research in Recreatian and Parks	3
Rec. 310 — Intraduction ta Administration	3
Tatal	26

[1] One eight-week summer sessian af field practicum is required.

Program Specialist Option

GENERAL EDUCATION	HOURS
See page 374	55-66

PREPROFESSIONAL AND PROFESSIONAL CORE COURSES

See page 375 41-43

RELATED PROFESSIONAL COURSES

Geog. 214 — Conservation of Natural Resources 3
Soc. W. 333 — Introduction to Social Group Work 3
Rec. 274 — Urban Recreation 3
Rec. 272 — Organization of Aquatic Programs 2
Seven hours of leisure activity courses to be selected with adviser 7
Total 18

ELECTIVES

To yield a total of 132

Recreation and Park Administration Option

GENERAL EDUCATION **HOURS**

See page 374 55-66

PREPROFESSIONAL AND PROFESSIONAL CORE COURSES

See page 375 41-43

RELATED PROFESSIONAL COURSES

Rec. 320 — Park Management 3
For. 100 — Farm Forestry 3
Geog. 214 — Conservation of Natural Resources 3
Hort. 225 — Ornamental Gardening 3
Hort. 236 — Turf Management 3
U.P. 171 — Planning of Cities and Regions 3
Total 18

ELECTIVES

To yield a total of 132

Therapeutic Recreation Option

GENERAL EDUCATION **HOURS**

See page 374 55-66

PREPROFESSIONAL AND PROFESSIONAL CORE COURSES

See page 375 41-43

RELATED PROFESSIONAL COURSES

Soc. W. 333 — Introduction to Social Group Work 3
P.E. 208 — Theory of Prescribing Exercise 3
Psych. 338 —Abnormal Psychology 3
Rec. 330 — Principles of Therapeutic Recreation 3
Rec. 331 — Recreation Leadership for Special Groups 3
Psych. 201 — Introduction to Social Psychology, or Psych. 250 — Psychology of Personality . 3
Total 18

ELECTIVES

To yield a total of 132

Outdoor Recreation Option

GENERAL EDUCATION **HOURS**

See page 374 55-66

PREPROFESSIONAL AND PROFESSIONAL CORE COURSES

See page 375 41-43

RELATED PROFESSIONAL COURSES

Rec. 321 — Recreational Use of Public Lands 3
Anth. 369 — Introduction to Human Ecology 3-5
Geog. 214 — Conservation of Natural Resources 3
Geog. 314 — Regional Problems in Conservation 3
U.P. 171 — Planning of Cities and Regions 3
U.P. 380 — Survey of Regional Planning 3
Total 18-20

ELECTIVES

To yield a total of 132

Outdoor Interpretive Education Option

GENERAL EDUCATION **HOURS**

See page 374 55-66

PREPROFESSIONAL AND PROFESSIONAL CORE COURSES

See page 375 41-43

RELATED PROFESSIONAL COURSES

Biol. 312 — Environmental Biology 5
Bot. 260 — Introduction to Plant Taxonomy 3
Geol. 101 — Physical Geology 4
Geog. 214 — Conservation of Natural Resources 3
Zool. 335 — Ornithology 3
Rec. 340 — Outdoor Education in Public and Private Agencies 3
Total 21

ELECTIVES

To yield a total of 132

Minor in Recreation for Nonrecreation Majors

HOURS

Rec. 100 — Leisure: Its Uses and Resources 2
Rec. 110 — Foundations for Recreation and Park Services 2
Rec. 200 — Leadership in Recreation and Park Administration 3
Rec. 180 — Recreation Program Lab I 1
Rec. 181 — Recreation Program Lab II 1
Rec. 215 — Recreation Program Development 3
Rec. 210 — Theories and Methods of Supervision 3
Any two of the following:
  Rec. 140 — Principles of Camping 3
  Rec. 130 — Introduction to Therapeutic Recreation 2
  L.A. 226 — Principles of Park Design 2
  Rec. 141 — Introduction to Outdoor Education and Recreation 2
Total 19-20

Pam Schaefer, Granite City, Illinois

JANE ADDAMS SCHOOL OF SOCIAL WORK

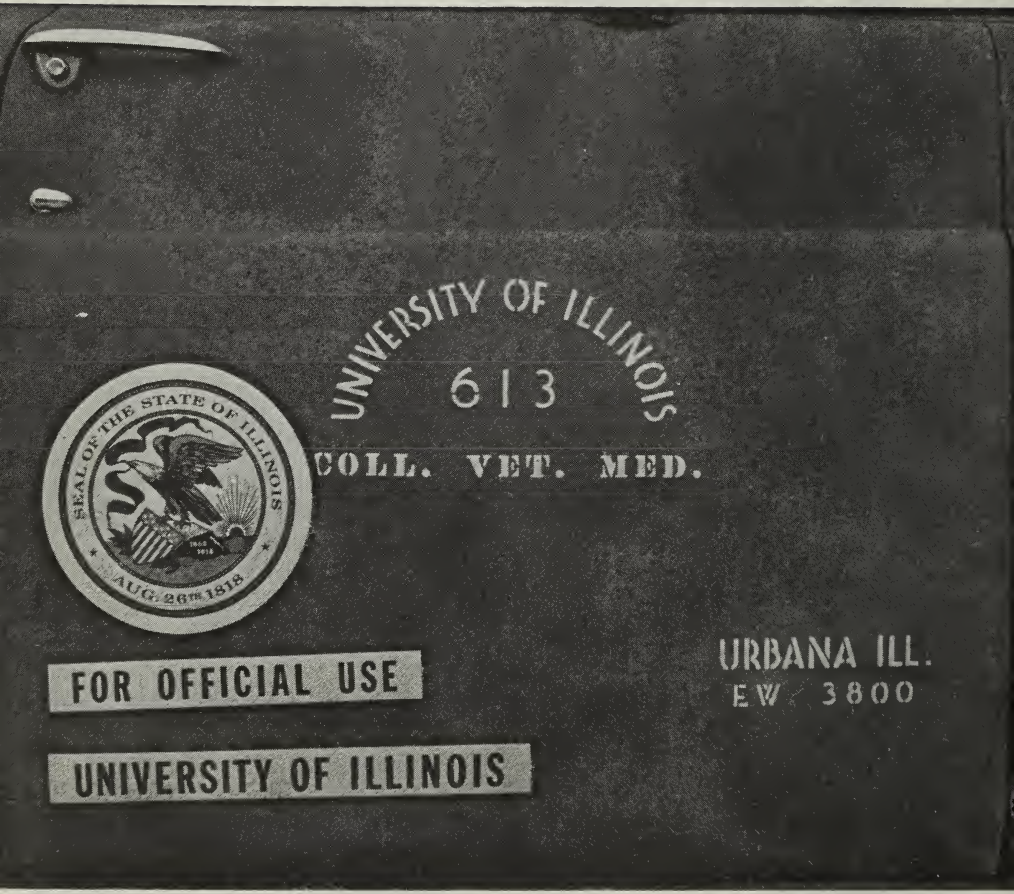
University of Illinois at Urbana-Champaign
1207 West Oregon Street
Urbana, IL 61801

The Jane Addams School of Social Work offers a program of undergraduate and graduate study leading to the professional degrees of Bachelor of Social Work, Master of Social Work, and Doctor of Social Work. Students desiring help in planning their undergraduate programs are urged to consult the school's undergraduate adviser.

The undergraduate courses in social work are for those individuals who wish to pursue a course of academic study and supervised field work which prepares them for direct social work practice and graduate study in social work.

The Jane Addams program is approved by the Council on Social Work Education. A completed program includes studies in the school of social work and in selected departments within the University of Illinois at Urbana-Champaign. The focus of the curriculum is on teaching the basic skills and knowledge necessary in a variety of settings: child welfare, family services, medical and rehabilitation programs, corrections, public welfare, mental health, and services to the aged. Upon graduation, opportunities for employment in social welfare include a broad array of positions with governmental and private social service agencies.

Beginning freshmen interested in a career in social work are advised to enroll in the general curriculum of the College of Liberal Arts and Sciences. Students must have junior standing to enter the Bachelor of Social Work program.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Mary K. Roth, Princeton, Illinois

COLLEGE OF VETERINARY MEDICINE

University of Illinois at Urbana-Champaign
137 Veterinary Medicine Building
Urbana, IL 61801

The College of Veterinary Medicine educates men and women in medical disciplines involving the animal kingdom. The four-year professional curriculum leads to the degree of Doctor of Veterinary Medicine. The program gives students a broad foundation in biological and physical sciences and practical knowledge in the application of these principles to the prevention, control, and eradication of animal diseases. The college also strives to emphasize the profession's obligation to society.

Veterinary medicine offers an unlimited variety of intellectual and scientific challenges. Most veterinarians engage in specialized animal practice. Many others are involved in public health activities which include controlling and eradicating diseases, assuring the wholesomeness of food products, developing and producing biological products and drugs, and enforcing health regulations for transported animals. Still other veterinarians engage in teaching and research.

Students receive the benefit of an instructional program constantly enriched by the latest advances in veterinary medicine. The first two years are devoted largely to basic veterinary medical subjects; the final two years consist chiefly of instruction in applied clinical subjects such as medicine, surgery, and obstetrics. A major share of fourth-year instruction is in clinic and laboratory areas, enabling students to apply knowledge gained in classroom work to the diagnosis, prevention, treatment, suppression, and eradication of disease.

The college is affiliated with the Agricultural Experiment Station and the Cooperative Extension Service and is a component of the Graduate College. It cooperates with the state Departments of Agriculture, Public Health, and Conservation, and the State Natural History Survey on various projects.

ADMISSION REQUIREMENTS

The preprofessional program must include a minimum of 60 semester hours (90 quarter hours) of college level course work, exclusive of courses in physical education and military training. The courses are to be equivalent to those recommended for students majoring in biological sciences. It is strongly recommended that the science courses not be taken on a credit-no credit option. The preprofessional course requirements can be completed at any fully accredited college or university. The program must include as minimum:

Biological sciences: Two semesters (8 semester hours) or the equivalent of college level course work in biological sciences with appropriate laboratory experience. These courses should emphasize the cellular, molecular, and genetic aspects as well as the structure and function of living organisms.

Chemistry: Four semesters (16 semester hours) or the equivalent of college level chemistry, including organic chemistry. Laboratory work and familiarity with quantitative techniques are important aspects of this experience.

Physics: Two semesters (8 semester hours) or the equivalent of college level course work in physics with appropriate laboratory experience. These courses should include heat, light, sound, electricity, and mechanics.

English: One semester (3 semester hours) or the equivalent of college level course work in English composition.

Humanities and social sciences: Four semesters (12 semester hours) or the equivalent of college level course work in the humanities and/or social sciences.

Electives: Optional courses (13 semester hours).

Each applicant must also provide results of his or her performance on the Veterinary Aptitude Test (VAT).

The Committee on Admission of the College of Veterinary Medicine will consider an application only if the applicant presents a minimum cumulative grade-point average of 3.5 (A = 5.0) at the end of the fall term preceding the desired date of admission. Completion of the minimum academic requirements does not guarantee admission to the professional curriculum. Because of limitations in facilities and the amount of support available to the College of Veterinary Medicine, the number of students who enter the professional curriculum each year must be restricted.

Preference is given to residents of Illinois; a limited number of nonresidents with superior qualifications may be admitted. Nonresidents offered admission will usually be from states that do not support their own college of veterinary medicine.

Among the criteria used in making selections for admission are: scholarship and scholastic achievement, VAT results, and letters of recommendation. Applicants are expected to demonstrate potential for contribution to and advancement of the profession. An interview may be required by the committee as a means of supplementing information obtained from the materials submitted. Veterans receive some special consideration. The committee does not consider race, religion, national origin, or sex in making its selections.

Application materials are available from the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, Illinois 61801, after October 1 for the following fall semester. Applicants are advised to request all materials as soon as possible after this date so that the application and supporting credentials can be submitted before the established deadlines for the current application year. The application must be accompanied by a nonrefundable application fee, which is used to partially cover the cost of processing the application for presentation to the Committee on Admissions.

HONORS PROGRAMS

For information about University Honors and the Dean's List see pages 101 and 102.

Honors at Graduation

Honors are awarded to superior students in the professional curriculum. For graduation with Honors, a student must have a grade-point average of not less than 4.35 (A=5.0) in all courses completed in the College of Veterinary Medicine; for graduation with High Honors, a grade-point average of not less than 4.75 (A=5.0) is required.

Awards

Competitive prizes, scholarships, and miscellaneous awards which are offered to students in the College of Veterinary Medicine are listed below:

Dr. Lester E. Fisher Award. An award is presented annually for proficiency in small animal medicine by Dr. L. E. Fisher, director of Lincoln Park Zoological Gardens in Chicago.

Illinois State Veterinary Medical Association Award. An award is made annually to the fourth-year student with the highest scholastic average for the four-year professional course in veterinary medicine.

Illinois Veterinary Medical Alumni Association Award. This annual award is presented for proficiency in clinical medicine.

Dr. Edward C. Khuen Award. In memory of the late Dr. Edward C. Khuen, the Chicago Veterinary Medical Association established in 1968 an award to be given annually to a fourth-year veterinary medical student proficient in small animal surgery. Dr. Khuen, a Chicago veterinarian and Cook County rabies inspector from 1954 to 1968, was influential in promoting the passage of many Illinois laws which affect veterinary medicine and public health.

Omega Tau Sigma Award. By inscribing his or her name on a plaque which is displayed in the college library, this fraternity annually honors a senior student member who has demonstrated high academic and extracurricular achievement. A gift is also presented to this student.

Charles Pfizer and Company Award. An award is made to help defray expenses of a fourth-year veterinary medical student. Recipient is selected in his third year on the basis of merit and financial need.

Dr. Jesse Sampson Award. This award was established in 1965 by the late Dr. Jesse Sampson, emeritus professor of veterinary physiology and pharmacology, to recognize a third-year student for scholarship, achievement, and aptitude in physiology.

Upjohn Company Awards. Two annual awards for proficiency in clinical medicine. Two fourth-year students receive an award each year, one for proficiency in small animal medicine, the other for large animal medicine.

Women's Auxiliary of the American Veterinary Medical Association. An award is presented to the fourth-year student doing the most to advance the standing of the veterinary medical profession on the University of Illinois campus.

Carrie McGreevy Award. Given annually to the fourth-year student with the second highest scholastic average for the professional curriculum in veterinary medicine.

Dr. Sidney Marlin Memorial Award. Given in memory of Dr. Sidney Marlin to the student ranking first academically in the course V.P.H. 341 — Food Hygiene and Public Health.

Diamond Service Award. One fourth-year student who has attained academic objectives through persistence, tenacity, and perseverance is selected to receive

this service award established by Diamond Laboratories, Inc., Des Moines, Iowa.

Chain O'Lakes Kennel Club. One scholarship given annually for a student in the College of Veterinary Medicine.

Anna M. Gulick. Income from a bequest is available for a student of exemplary habits and character and demonstrated financial need. Amount of award varies.

Lake County Humane Society. One year's income from 100 shares of General Motors Corporation stock is awarded annually to a first- or second-year veterinary medical student selected on the basis of need and scholarship. Preference is given first to residents of Lake County, then to other residents of Illinois. The award was established October 18, 1966, in honor of Ida Himmelreich and Gertrude Glass.

Mattoon Kennel Club Scholarship. Two scholarships awarded annually based on financial need and interest in small animal medicine.

Allen Products Company Scholarship. A scholarship is available to a first-year student based on financial need. The scholarship will continue throughout that student's veterinary medical education at the University of Illinois.

Quincy Kennel Club Scholarship. Given to a second- or third-year student based on financial need. Final selection of the recipient is made by the Quincy Kennel Club, Inc.

Illinois Feline Fanciers, Inc. Scholarship. One scholarship is given annually to a student in the College of Veterinary Medicine. Final selection of the recipient is made by the Illinois Feline Fanciers, Inc., Springfield, Illinois.

Veterinary Medicine, Various Donors Scholarship. Given to a veterinary student with demonstrated financial need.

GRADUATION REQUIREMENTS

Students who have fulfilled their general education course requirements and have passed all courses in the first two years of the veterinary medicine curriculum, and who have a cumulative grade-point average of 3.0 (A=5.0) or better in these courses, are eligible for the degree of Bachelor of Science in Veterinary Medicine.

Students who have passed all courses prescribed in the four-year veterinary medicine curriculum and who have a cumulative grade-point average of 3.0 (A=5.0) or better in these courses, are eligible for the degree of Doctor of Veterinary Medicine.

CURRICULUM IN VETERINARY MEDICINE

For the degree of Doctor of Veterinary Medicine

FIRST YEAR[1] FIRST SEMESTER	CREDIT HOURS	CLOCK HOURS
An. S. 110 — Plant and Animal Genetics	3	4
Bioch. 350 — Biochemistry	3	3
V.B.S. 300 — Gross Anatomy	5	12
V.B.S. 301 — Microscopic Anatomy	4	7
V.P.H. 330 — Veterinary Medical History and Orientation	1	1
Total	16	27

SECOND SEMESTER	CREDIT HOURS	CLOCK HOURS
An. S. 325 — Principles and Applications of Animal Nutrition	5	6
V.B.S. 302 — Gross Anatomy	4	8
V.B.S. 303 — Microscopic Organology	3	6
V.B.S. 305 — Developmental Anatomy	3	3
V.P.H. 331 — Veterinary Bacteriology	5	9
V.C.M. 378 — Clinical Orientation	1	1
Total	21	33

[1] Only students who have been accepted for admission to the professional curriculum are eligible to begin the first year's work in the College of Veterinary Medicine.

SECOND YEAR	CREDIT HOURS	CLOCK HOURS
V.P.H. 332 — Veterinary Microbiology and Immunology	4	7
V.P.H. 333 — Protozoan and Arthropod Parasites	3	5
V.P.H. 334 — General Pathology	5	9
V.P.P. 315 — Physiology	5	8
Total	17	29
An. S. 201 — Livestock Management	5	5
V.P.H. 335 — Special Pathology	5	9
V.P.H. 336 — Helminth Parasites	3	5
V.P.P. 316 — Physiology	4	7
V.P.P. 318 — Pharmacology	4	6
Total	21	32
THIRD YEAR		
V.B.S. 304 — Applied Anatomy I	1	2
V.C.M. 360 — Medicine I, General Medicine	5	5
V.C.M. 361 — General Surgery	5	8
V.C.M. 362 — Clinical and Laboratory Practice[2]	2	7
V.C.M. 363 — Reproduction, Obstetrics, and Genital Diseases	2	2
V.P.H. 338 — Clinical Pathology	2	4
V.P.P. 320 — Pharmacology and Toxicology	4	6
Total	21	34
Electives[3]		
V.B.S. 306 — Applied Anatomy II	1	2
V.C.M. 364 — Medicine II, General Medicine	5	5
V.C.M. 365 — Special Surgery	5	8
V.C.M. 366 — Clinical and Laboratory Practice[2]	2	7
V.C.M. 367 — Radiology and Radiobiology	3	4
V.C.M. 375 — Reproduction, Obstetrics, and Genital Diseases	2	4
V.P.P. 324 — Large Animal Nutrition or	2	2
V.P.P. 326 — Small Animal Nutrition	1	1
Total	19-20	31-32
Electives[3]		
FOURTH YEAR		
V.C.M. 368 — Infectious Diseases	5	5
V.C.M. 369 — Medicine III, Preventive Medicine	2	2
V.C.M. 370 — Seminar	0	1
V.C.M. 371 — Clinical and Laboratory Practice[2]	8	25
V.P.H. 340 — Diseases of Poultry	2	2
Total	17	35
Electives[3]		
V.C.M. 370 — Seminar	0	1
V.C.M. 372 — Veterinary Jurisprudence	2	2
V.C.M. 373 — Principles of Veterinary Medical Ethics	0	1
V.C.M. 374 — Clinical and Laboratory Practice[2]	10	29
V.P.H. 341 — Food Hygiene and Public Health	5	6
Total	17	39
Electives[3]		

[2] Assignments outside of regularly scheduled clinic hours are made and must be adhered to by the students involved.

[3] A total of 153 credit hours is required for graduation. Required course credits total 149 or 150, depending on which veterinary nutrition option (V.P.P. 324 or 326) the student elects. The remaining credit hours (3 or 4 credits) must be fulfilled by taking elective courses offered by the College of Veterinary Medicine.

Appendixes

APPENDIX A: GRANTS AND SCHOLARSHIPS ADMINISTERED BY THE UNIVERSITY

This list of grants and scholarships administered by the University is for information only. *Students do not apply for specific grants or scholarships.* For specific information regarding application procedures for financial aid assistance consult Financial Aid from the University on page 80.

Grants

Grant funds are made available to students with exceptional financial need regardless of academic performance. The federally funded Supplemental Educational Opportunity Grant (SEOG) Program is the largest of the grant programs administered for undergraduates at the University of Illinois by the Office of Student Financial Aids. The primary intent of the SEOG program is to make financial aid available in the form of grants to secondary school graduates who would be good college prospects, but who could not otherwise attend because of lack of funds. It was also intended that this aid would reduce dropouts and encourage reentry into educational programs by those who have dropped out. SEOG's can also be extended to transfer students and those already enrolled in a collegiate institution.

In the SEOG program, the financial need requirements are rigorous and are fundamental in the determination of eligibility for benefits. A student's eligibility and grant stipends are determined by the expected contributions from the income and assets of his parents. SEOG's may range from $200 to $1,000.

A requirement for keeping these awards is that the student must accept an equal amount of financial aid which serves as the matching portion of the grant. This matching provision calls for the use of University-approved or controlled funds and could include scholarships, employment, or loans.

Students normally may qualify for up to eight semesters of SEOG assistance providing the eligibility requirements are met each year.

Students for Equal Access to Learning (SEAL) is a gift-aid program funded jointly by voluntary contributions from students and by matching funds provided by the state legislature through the Illinois State Scholarship Commission. Students initiated this program by a referendum decision in the spring of 1970. The students' decision to assess themselves $2 each semester to raise financial aid funds for needy classmates was recorded in a spirit of genuine altruism. Students who do not desire to contribute may request a refund. Awards from SEAL funds are made in accordance with rules prescribed by the students and the Illinois State Scholarship Commission.

Scholarships

The Urbana-Champaign Campus Committee on Financial Aids to Students requires that recipients of most scholarships have superior academic records in addition to demonstrated financial need. A superior record for a high school student means ranking at least in the upper 25 percent of his high school class, or for an applicant with university credit, that he have a minimum cumulative grade-point average of at least 3.75 in terms of the University of Illinois grading system (A=5.0).

The list of scholarships administered by the Office of Student Financial Aids with a brief description of each and the names of the donors whose generosity has provided the fund is given below. *An asterisk by the name of the fund indicates that it is administered through the University of Illinois Foundation.*

GENERAL CASH SCHOLARSHIPS AVAILABLE IN VARIOUS FIELDS OF STUDY

Alpha Delta Phi Alumni Foundation (Illinois Chapter). One four-year scholarship for a male freshman selected on the basis of activity, leadership, and academic achievement with consideration given to financial need.

Nettie Arterburn. One or more scholarships for students from Kansas Township or Edgar County. Variable amount.

Mary Davis Barnhart.* Scholarships established by the late Mary Davis Barnhart for undergraduate students. Varying amounts.

Albert Bellamy. Five or six scholarships of varying amounts.

Bert Bertine Memorial.* One award made each year to a male student who participates in the freshman or varsity athletic program. Amount varies.

Katherine H. Blake. A scholarship for undergraduate students established by the late Katherine H. Blake. Awards vary in amount.

F. Stanley Boggs Memorial.* Established by alumni and friends of the Phi Kappa Sigma fraternity. Income from the fund provides scholarships for male students based on need, scholarship, and participation in activities. Amounts vary.

Henrietta Curtis Hill Braucher Memorial.* Several scholarships established by the late Ralph W. Braucher. Amounts vary.

Irma and Anton Brust. A number of $500 scholarships established by the late Irma Brust for residents of Illinois.

Grace V. Campbell. Scholarship established by the late Grace V. Campbell for undergraduate students from farm homes. Award made whenever funds are available.

Bertha L. Compton Memorial. A scholarship established by Mr. Warren E. Compton in memory of his mother for a student of good character who is not a member of a fraternity or sorority. Recipients must agree to repay to the fund as soon as they can. Awards made in varying amounts.

Harry Darby.* Scholarships each year from funds provided by Mr. Harry Darby. Amounts vary.

Delta Zeta. One scholarship from funds provided by the Alumni Association of Alpha Beta Chapter for a young woman who has demonstrated qualities of campus leadership. $300.

Ralph E. Fletcher Memorial.* One award each year to a male student who is a resident of Illinois and who participates in the freshman or varsity football or golf program. Tuition and fees.

Foundation.* A number of scholarships supported by gifts to the University of Illinois Foundation. Amounts vary.

Paul V. Galvin Memorial. Scholarships established by gifts of Motorola dealers to honor Paul V. Galvin, founder and president of the company. Awards vary in amount.

Maxwell R. Garrett.* One or more awards for students who have participated in varsity fencing or who have received freshman numerals in fencing. Amount varies but is not less than tuition and fees.

Ruth Katz Greenberg.* Scholarship varies in amount.

John M. and Louisa C. Gregory. Several awards each year on the basis of University record and need, to deserving students who do not use tobacco or alcohol. Awards are $100 each and are not renewable.

Dunlap Harrington Memorial. An award to a male graduating senior, who has been substantially self-supporting, to make it possible for him to enjoy fully the activities of Commencement Week. $100.

Jeanette E. and Benjamin F. Hunter. A number of scholarships each year to young men or women from farm homes who have very high scholarship and urgent financial need. Awards are $900 a year and are usually limited to two years.

Illini Clubs.* Scholarships for freshmen from funds contributed by University of Illinois alumni clubs and supplemented by the University of Illinois Alumni Association. Amounts vary.

Illini Club of Chicago.* One award annually to an entering freshman from the Chicago metropolitan area. Renewable for three years. $300.

Illini Mothers Association. A number of scholarships each year. Tuition and fees.

Illinois State Federation of Labor and Congress of Industrial Organizations. Two scholarships each year for children of union members affiliated with the Illinois federation. One recipient shall be from Cook County and one from some other county. Awards of $500 each are not renewable.

William H. and Isabella A. Kane Memorial.* For needy and promising students of Wellsville high schools of New York and other qualified students in the natural, applied, or social sciences. Variable amounts up to the total cost of tuition and fees.

Leo and Hilda Kolb Memorial. Scholarships for students from Madison County, preferably from Marine Township. Amounts vary.

Mr. and Mrs. C. G. Larned. The late Mary S. Parsons established this memorial scholarship for undergraduate students. Awards are made when funds are available.

Link-Belt Educational Fund.* A number of scholarships from the income received from Link-Belt Company stock given to the University of Illinois by an anonymous donor. Preference is given to students enrolled in engineering or commerce curricula and children of Link-Belt employees. Amounts vary.

Ernie Lovejoy Memorial.* One award each year to a male student who is a resident of Illinois and who participates in the freshman or varsity football program.

Charles E. Merriam.* Established by Charles J. Merriam in honor of his father, former chairman of the Department of Political Science at the University of Chicago. Two scholarships of $500 each to students in the University who submit the best essays on local government. One $750 scholarship to an outstanding junior majoring in political science for use during his senior year, and one $500 scholarship to an outstanding sophomore for study as a political science major during his junior year.

Wensel Morava. Eighteen to twenty scholarships for men and women between seventeen and twenty-two years of age who have good health and good character. Recipients must be members of a church or Sunday school, agree not to join a fraternity or sorority in the first two years under the scholarship, and must agree to assist some other student with his or her expenses at the University if they are financially able to do so. Preference is given to students of Czechoslovakian descent. Amounts vary.

Lucille E. Morf. Scholarships of varying amounts established by the late Lucille E. Morf.

Mr. and Mrs. Edward North.* Several awards to students from North Greene High School, White Hall, Illinois. Awards vary in amount.

Laverne Noyes. Awards to nearly fifty students who are descendants of World War I veterans to cover up to the full amount of resident or nonresident tuition and fees charges.

John W. Page Foundation. Several grants for male students with financial need who do not meet scholarship requirements for awards from other scholarship funds. Awards vary in amount.

James D. and Clara Phillips. One or two awards each year.

Eric H. and Ruby V. Peterson. A number of scholarships of varying amounts. Preference given to students from Rockford, Illinois.

Phi Sigma Delta, Alpha Gamma Chapter Scholarship/Grant.* A scholarship or grant with preference given to sons and daughters of the Alpha Gamma Chapter of Phi Gamma Delta fraternity. Recipients must work ten hours per week. Amounts vary.

John C. Ruettinger.* Scholarships to deserving students in varying amounts.

Phyllis Pierce Ruettinger Memorial.* Scholarships for women of junior or senior standing. Established by Mrs. Kitty Pierce in memory of her daughter. Amounts vary.

John T. Rusher Memorial. Scholarships established by Mr. and Mrs. Floyd E. Rusher as a memorial to their son. Preference given to students from Peoria and Tazewell counties. Amounts vary.

Gretchen Johanna and Paul Charles Schilling. Scholarships not to exceed $500 each. Awarded each year from income provided by endowment funds.

Emerson F. Schroeder.* One or two awards each year. Amounts vary.

Clara Y. Shaw.* A substantial number of scholarships in varying amounts.

Myron I. Silverman Memorial.* Several scholarships, when income is available, from funds provided by the University of Illinois Praetorian Alumni.

Amelia Alpiner Stern. One four-year scholarship for a freshman established by the University of Illinois Mothers Association as a tribute to Mrs. Amelia Alpiner Stern, the organizer and first president of the Mothers Association. Awarded in 1963 and every fourth year thereafter. Tuition and fees.

Ida King Stevens. Scholarship established by the Champaign-Urbana chapter of the American Association of University Women for a local woman who, after an interruption, is pursuing an undergraduate degree.

Suncoast Illini Club.* One $115 scholarship to help support a qualified student from the state of Florida.

D. Alice Taylor. Fund established by the late D. Alice Taylor for scholarships or grants to needy and worthy students. A number of awards in varying amounts.

Linsey F. Ter Bush Memorial. One scholarship. Amount varies.

Dean Fred H. Turner.* Established by the Interfraternity Council and the Panhellenic Association to honor the first dean of students at the University of Illinois. Two scholarships awarded annually to second semester freshmen, or to sophomores, juniors, or seniors affiliated with a Greek social fraternity or sorority. Amounts vary.

Earl C. and Lawrence L. Voodry. One or more scholarships in varying amounts.

Manierre Barlow Ware. Two scholarships each year for male students, preferably in the College of Agriculture, established as a memorial to Manierre Barlow Ware by his mother.

Arthur Cutts Willard Memorial.* One or more awards for worthy senior students who have demonstrated scholastic ability and who have established records of good character and dependability. Established by former students, friends, and admirers

of the late Dr. Arthur Cutts Willard, ninth president of the University of Illinois. $500 each.

Women's League. One or two scholarships for women. Amount varies.

Etta and Laura Beach Wright.* A substantial number of scholarships from the income derived from a bequest. Amounts vary.

Harry G. and Harriette A. Wright. Awards of $200 to $400 plus tuition and fees with preference given to students in agriculture and related fields and to residents of DeKalb, Lee, Randolph, and Whiteside counties.

SCHOLARSHIPS AVAILABLE IN CERTAIN FIELDS OF STUDY

Agriculture and Home Economics

Agrico Chemical Company. One scholarship for a student enrolled in the agricultural industries curriculum. $600.

Agriculture Alumni Fund.* One or more awards each year to students in agriculture. Amounts vary.

Frank W. Bauling Memorial.* One scholarship for a junior or senior enrolled in agricultural engineering in either the College of Agriculture or the College of Engineering. Established as a memorial by Mr. and Mrs. Frank E. Bauling as a memorial to their late son. Amount varies.

James A. Bauling Memorial. One scholarship for a junior or senior who is majoring in agronomy or who plans to do advanced work in plant pathology. $200 to $250.

Borden Company. One scholarship for the senior in the College of Agriculture who has attained the highest average during his first three years of work and one for the senior in home economics who has the highest average and has completed at least two courses in foods and nutrition. $300 each.

Miles W. Bryant. One or more scholarships for students majoring in ornamental horticulture from funds provided by the Illinois State Nurserymen's Association. $300 to $600 each.

Chicago Farmers. One scholarship awarded to a junior student in agriculture for the use of the student during his senior year. $500.

Continental Grain Foundation. The foundation provides $2,500 for scholarships in agriculture. Preference is given to students in agricultural marketing. Awards vary in amount.

K. J. T. Ekblaw.* One scholarship awarded in alternate years to a sophomore in the College of Agriculture or in the College of Engineering who is majoring in agricultural engineering. Established by Alma H. Morehouse to honor her father, K. J. T. Ekblaw, a former member of the agricultural engineering faculty. $300.

Farmland Industries (Farmers' Co'op at Lincoln). Two $400 a year scholarships; one to a junior and one to a senior.

Federal Land Bank Association. Two scholarships for freshman men entering the College of Agriculture. $500 each.

Food Science — Various Donors. Several grants to entering freshmen in the food science curriculum which are renewable provided the student maintains a C or better average each semester. $250 each year.

FS Services, Inc. Two scholarships for a junior or senior in the College of Agriculture with a rural background. Preference is given to students in the agricultural industries curriculum. Renewable through the senior year. $400.

General Foods Fund, Inc. Three $400 agriculture scholarships for freshmen. Two in food science; one in dairy science, agronomy, or microbiology.

David M. Hardy. One scholarship from the St. Louis Bank for Cooperatives for a male junior, senior, or graduate student who is interested in the possibility of

employment by a farmers cooperative marketing, purchasing, or credit association. The recipient must be enrolled in agricultural, business, or agricultural business courses acceptable for credit toward a degree in the field of agriculture or business. $500.

Fred E. Herndon Agricultural Industries. Funds provided by FS Services, Inc., for two or three scholarships for juniors or seniors in the agricultural industries curriculum. Awards vary in amount.

Illinois Homemakers Extension Federation. Three scholarships of $250 each for students enrolled in the home economics curriculum. Preference given to students from McLean County.

Illinois Production Credit Association. Four scholarships for junior or senior students in the College of Agriculture. Preference is given to students who have exhibited an interest in farm credit. $200 each.

Illinois Society of Professional Farm Managers and Rural Appraisers Memorial. Awards, in varying amounts, with preference to students majoring in farm management and/or rural appraisal.

Kunkle-Andersen. Several scholarships awarded each year to entering freshmen in an agricultural curriculum through income from a $25,000 endowment. At least one-third of the annual income shall be awarded to a student or students residing in Marshall or Putnam County, Illinois. The balance of the income may be awarded to other eligible students who are residents of Illinois. Amounts vary.

Margaret H. Lang Memorial Scholarship. One scholarship for a junior or senior in agriculture. Approximately $400.

Max Monblatt. One scholarship each year to a student enrolled in the horticulture or ornamental horticulture curriculum. $200 to $300.

Moorman Manufacturing Company. Four or more scholarships for students in agriculture, preferably animal-related curricula. Amounts vary.

Ralston Purina. One scholarship for a junior or senior in the College of Agriculture who ranks in the upper 25 percent of his or her class. $500.

Bryan Reardon. Several scholarships for students specializing in soil building. Amounts vary.

Seitzinger Memorial.* One scholarship in agriculture awarded every fifth year after 1967-68. $200.

William Stack Memorial. One scholarship each year to a student majoring in agronomy or a related field. $250.

Texaco Incorporated. Three scholarships for sophomores, juniors, or seniors enrolled in certain engineering curricula, or who are majoring in agronomy, physics, geophysics, mathematics, chemistry, or chemical engineering. Average award about $385.

Wood Industries — Various Donors. Several scholarships available to freshmen in the wood technology and utilization curriculum. $300 to $500 each.

Commerce and Business Administration

Alcoa Foundation. One $750 grant in accountancy awarded on basis of achievement.

First Federal Savings and Loan Association of Champaign, Illinois. One scholarship for a student who is a resident of Illinois with preference given to residents of Champaign County. $500.

David M. Hardy. Funds provided by the St. Louis Bank for Cooperatives for one scholarship for a male junior, senior, or graduate student who is interested in the possibility of employment by a farmers cooperative marketing, purchasing, or credit association. The recipient must be enrolled in agricultural, business, or agricultural business courses acceptable for credit toward a degree in the field of agriculture or business. $500.

Wayne A. Johnston Memorial. One or two scholarships for a student enrolled in an economics curriculum who has elected a transportation option. Preference is given to children of Illinois Central Railroad employees. $600 to $1,200 each.

Link-Belt Educational Fund.* A number of scholarships from the income received from Link-Belt Company stock given to the University of Illinois by an anonymous donor. Preference is given to students enrolled in the engineering and commerce curricula and children of Link-Belt employees. Amounts vary.

Hiram T. Scovill. A fund honoring Professor Emeritus Hiram T. Scovill provides several scholarships for students in the College of Commerce and Business Administration, with preference to students majoring in accountancy. Amounts vary.

Seitzinger Memorial.* One scholarship awarded every fifth year, beginning in 1973-74, to a student in the College of Commerce and Business Administration.

Max Tepper Memorial.* One scholarship for a sophomore enrolled in the College of Commerce and Business Administration or the College of Engineering. Preference is given to residents of counties in east central Illinois. $500.

Communications

Donald E. Chamberlain. One scholarship for a journalism student aiming toward a career in newspaper reporting or editing.

Frank E. Gannett Newspaper Foundation, Inc. One scholarship for a student completing the junior year who has exhibited promise of success in the field of journalism. $500.

Hazel Mann Memorial. One or two scholarships sponsored by the Junior Women's Advertising Club of Chicago for junior women in the curriculum in advertising.

Shirley K. Strout. One scholarship for a member of Theta Sigma Phi (women's professional journalism fraternity) who is completing her junior year. $250.

Education

Illinois Congress of Parents and Teachers. A number of scholarships in varying amounts for students preparing to teach. Also a number of awards made to students who are preparing to teach deaf and mentally retarded children. Only students pursuing curricula in special education are eligible for these awards.

Seitzinger Memorial.* One scholarship awarded every fifth year after 1969-70 to a student in the College of Education.

Engineering

Alcoa Foundation. Five scholarships, one for a student in chemical engineering; two for students in mechanical engineering; one for a student in metallurgical engineering; and one for a student in computer science. $750 each.

Hilda J. Alseth.* Two or three scholarships for undergraduates in the College of Engineering established by the late Hilda J. Alseth. Amounts vary.

A. I. Andrews. One scholarship for a student in ceramic engineering.

Autotron, Inc. One scholarship annually for a junior or senior in the electrical engineering curriculum with a major in electronics. Renewable for the senior year. $800.

Frank W. Bauling Memorial. One scholarship for a junior or senior enrolled in agricultural engineering in either the College of Agriculture or the College of Engineering. Established by Mr. and Mrs. Frank E. Bauling as a memorial to their late son, an honor student at the University. Amount varies.

Bates and Rogers Foundation. One scholarship annually to a senior student in civil engineering who ranks in the top third of his or her class.

The Boeing Company. One scholarship for an Illinois resident enrolled in aero-

nautical, mechanical, civil, or electrical engineering with preference given to juniors or seniors. $500 each.

Caterpillar Tractor Company. Scholarships for students in metallurgical engineering. $500 each.

Ceramic Engineering. Awards of $500 to students in ceramic engineering, renewable at $500 a year if the holder maintains a superior scholastic average.

Champion Spark Plug. One scholarship for a student in ceramic engineering, renewable until graduation.

John Deere. One scholarship annually for a student in metallurgical engineering. $350.

Dow Chemical Company. One scholarship for a student in metallurgical engineering. $500.

K. J. T. Ekblaw.* One scholarship awarded in alternate years to a sophomore in the College of Agriculture or in the College of Engineering who is majoring in agricultural engineering. Established by Alma H. Morehouse to honor her father, K. J. T. Ekblaw, a former member of the agricultural engineering faculty.

Fansteel Metallurgical Corporation. Three scholarships for students in metallurgical engineering, preferably freshmen. $500.

Ferro Corporation. Two scholarships for students in ceramic engineering with first preference given to transfer students and then to entering freshmen. $300 each.

Foundry Educational Foundation. Varying number of scholarships for students interested in the foundry industry. Amounts vary.

R. Jaccoud Franklin. One scholarship for a student in civil engineering from funds provided annually by R. Jaccoud Franklin, a 1937 graduate in civil engineering. Amount varies.

Freshman Scholarships in Engineering. Scholarships are available to entering freshmen with high scholastic ability and superiority in mathematics and science who show evidence of financial need. Renewable through the senior year. Amounts vary.

General Engineering. One scholarship to a freshman in general engineering from alumni of the department. $500.

Globe-Union Foundation. One scholarship in ceramic engineering to a sophomore, renewable for the junior and senior years. $500.

Harbison-Walker. One scholarship awarded every four years to a freshman in ceramic engineering. Renewable through the senior year. $500 a year.

Delores Wade Huber. Scholarships for students in civil engineering provided by the late Delores Wade Huber. Amounts vary.

Illinois Mining Institute. One scholarship when funds are available for a student in general engineering enrolled in the mining and geological engineering option. $600.

Inland Steel Company. Three scholarships annually for students in metallurgical engineering. $500 each.

Wayne A. Johnston Memorial. One or two scholarships for a student enrolled in the civil engineering curriculum who has elected a transportation option. Preference is given to children of Illinois Central Railroad employees. $600 to $1,200 each.

Kaiser Aluminum and Chemical Corporation. Four scholarships or grants annually for students in ceramic engineering. $500 each.

Link-Belt Educational Fund.* A number of scholarships from the income received from Link-Belt Company stock given to the University of Illinois Foundation by an anonymous donor. Preference is given to students enrolled in engineering and commerce curricula. Amounts vary.

Magnavox Foundation. Scholarships for juniors or seniors in mechanical engineering or the communications area in electrical engineering. $500 each.

Metallurgical Education Fund.* A fund supported by industrial grants for awards in amounts up to $500 a year to students in metallurgical engineering. Awards are renewable on the basis of satisfactory academic performance.

Minnesota Mining and Manufacturing Company. Three scholarships for upperclassmen with preference for students in electrical, mechanical, and chemical engineering. $500 each.

Herman W. Nelson. Two $500 scholarships, one for a junior and one for a senior in mechanical, electrical, or general engineering.

Calvin Barnes Niccolls Memorial Fund.* A number of scholarships provided by a fund established by the late Mary Hall Niccolls for male students at any class level in the field of engineering.

Olin Mathieson. One scholarship for a student in metallurgical engineering. $500.

Owens-Corning Fiberglas Corporation. Two scholarships, one for a junior or senior in ceramic engineering, and one for a junior or senior in mechanical, electrical, or chemical engineering. $500 each.

C. W. Parmelee. A limited number of scholarships in ceramic engineering. Amount varies.

Pennsylvania Glass Sand Corporation. One scholarship in the senior year for the student in ceramic engineering who has the highest average for the junior year's work. Tuition and fees.

Franklin McRae Phillips Memorial.* One scholarship awarded in alternate years to a student in any curriculum in the College of Engineering. Established by his family to honor Franklin McRae Phillips, class of 1932. $300.

Charles S. Pillsbury Memorial.* Established by the Chicago Bridge and Iron Company in honor of Charles S. Pillsbury to provide scholarships for students in engineering. Amounts vary.

Theodore R. Schlader Memorial. Scholarships for students in architecture or architectural engineering, and in electrical engineering or other engineering fields. Amounts vary.

Schlumberger. One scholarship in electrical, mechanical, or petroleum engineering or physics or geology for a junior or senior who has included at least 12 hours of course work in electricity in his degree program. $1,200.

Frederick D. Secor Memorial. Scholarships for electrical engineering students. Amounts vary.

Seitzinger Memorial.* One scholarship awarded every fifth year after 1971-72 to a student in ceramic engineering. $200.

Shedd-Vawter.* One or more scholarships for students in civil engineering as income from an endowment fund permits. Amounts vary.

Grant Warren Spear Memorial. A number of scholarships from the income from a fund established by the late Emily F. Spear in memory of her father, Grant Warren Spear. For students in any curriculum in the College of Engineering. Amounts vary.

David B. Steinman.* One scholarship to a junior or senior in civil engineering. $500.

Sundstrand Foundation. Two scholarships awarded every fourth year to freshmen in electrical, industrial, mechanical, or metallurgical engineering with preference given to students who are residents of Rockford or La Salle County, Illinois, or of northern Illinois counties. The scholarship is renewable for three additional years. $500 each year.

Sverdrup and Parcel. One scholarship to a sophomore in civil engineering renewable for the junior and senior years. $600.

Max Tepper Memorial.* One scholarship for a sophomore enrolled in the College of Commerce and Business Administration or the College of Engineering. Preference is given to residents of counties in east central Illinois. $500.

Alex Van Praag, Jr. Scholarships for students in civil or sanitary engineering. Established by Mr. Alex Van Praag in memory of his son. $200 to $300 each.

Western Electric Fund. Three scholarships of tuition, fees, books, and supplies for undergraduate students in engineering.

Wyman-Gordon Company. Two scholarships for juniors or seniors in metallurgical engineering. $500 each.

Earle J. Wheeler.* Scholarships for junior or senior civil engineers. Amounts vary.

Leigh F. J. Zerbee. Scholarships for students enrolled in civil engineering who are also specializing in military science. $500.

Fine and Applied Arts

William Anderson. Several scholarships for talented men or women students already registered in the School of Music. Competitive auditions are required. Amounts may vary.

Lydia E. Parker Bates. About thirty-five scholarships in architectural engineering, architecture, art, dance, landscape architecture, theatre, and urban and regional planning. Awards are up to $400 for Illinois residents and up to $600 for nonresidents.

Junior Service League of Champaign-Urbana.* One or two scholarships for students enrolled in the art curriculum. $100 each.

Theodore Presser Foundation. One scholarship awarded every fourth year to a freshman in the School of Music, with preference to those who intend to teach music. Renewable for the sophomore, junior, and senior years. Competitive auditions are required. $400 each year.

Theodore R. Schlader Memorial. Scholarships in architecture, architectural engineering, and other engineering fields. Up to $400 each.

Warren H. Schuetz Memorial.* An annual scholarship of $100 awarded to an outstanding student in music education who has been admitted to advanced standing in teacher education.

Thomas J. Smith. Four tuition scholarships awarded each year to women residents of Illinois who are registered in the School of Music. Competitive auditions are required.

Frederic B. Stiven. Several one-year scholarships for students in the School of Music. Competitive auditions are required. $100 to $200 each.

Liberal Arts and Sciences

Alcoa Foundation. One $750 scholarship in chemical engineering awarded on the basis of achievement.

AMOCO Foundation Scholarship. One scholarship to an entering freshman whose major field is geology. Renewable through the senior year if holder maintains a superior academic record. Amounts vary.

Andrew and Hortense Call Barr.* One or more scholarships of varying amounts for women students in premedicine.

Chrysler Corporation. Several scholarships for students in the chemical engineering curriculum. Amounts vary.

School of Chemical Sciences. A number of $500 scholarships to outstanding freshmen registered in chemistry and chemical engineering, from an endowment fund established to honor Professor Emeritus Roger Adams. One scholarship is a memorial to Professor Ludwig F. Audrieth, and several scholarships are supported by E. I. duPont de Nemours and Company. Awarded primarily on the basis of superior scholastic achievement in a secondary school with some consideration

given to personal qualifications. Acceptance for admission to the College of Liberal Arts and Sciences is a prerequisite for these scholarships.

East Central Illinois Society of Plastic Engineers. One scholarship for a junior or senior enrolled in the chemistry or chemical engineering curriculum. Recipient must be a resident of certain counties in east central Illinois or of Sullivan or Vigo County in Indiana. $250.

Lois Shepherd Green. Several scholarships for students studying philosophy. $100 to $400 each.

Dr. Hartwell C. Howard Memorial. About fifteen scholarships for premedical and predental students. Established by Dr. Charles P. Howard in memory of his father. Amounts vary.

Link-Belt Educational Fund.* A number of scholarships from the income received from Link-Belt Company stock given to the University of Illinois Foundation by an anonymous donor. Preference is given to students enrolled in engineering and commerce curricula. Amounts vary.

Minnesota Mining and Manufacturing Company. Three scholarships for upperclassmen with preference for students in electrical, mechanical, and chemical engineering.

Owens-Corning Fiberglas Corporation. Two scholarships, one for a junior or senior in ceramic engineering, and one for a junior or senior in mechanical, electrical, or chemical engineering. $500 each.

Peter F. Rossiter Memorial.* Several scholarships awarded annually from the income from an endowment fund to students who are majoring in political science. Amounts vary.

Standard Oil Company of California. One scholarship for a student in chemical engineering. $750.

Stauffer Chemical Company. One or two scholarships awarded annually to seniors in the chemical engineering curriculum on the basis of academic achievement.

Fred E. Sweitzer.* Two $500 scholarships. Preference is given to applicants of Washington Community and Pekin High Schools. May be extended to other high schools of Tazewell County.

Occupational Therapy

Illinois Federation of Women's Clubs. Varying number of scholarships for students in occupational therapy supported by the Illinois Federation of Women's Clubs and by the Illinois Federation of Women's Clubs, Third District. Up to $200 a semester at Urbana-Champaign.

Illinois Occupational Therapy Alumni Association. Scholarships are awarded to students in the occupational therapy curriculum as funds become available. Awards vary in amounts.

Other scholarships in occupational therapy are supported by the Illinois Association for the Crippled, the Illinois Occupational Therapy Association, the United Cerebral Palsy Association, and the United States Vocational Rehabilitation Administration. Amounts vary.

Physical Education

John Bruce Capel Memorial.* An award available each year to an undergraduate student in recreation and park administration. Amount varies.

Carita Robertson. One or more scholarships awarded each year to junior or senior students in the undergraduate professional preparation program in physical education for women. Amounts vary.

Robert C. Zuppke. Several scholarships for male students in the general curriculum in physical education who are residents of Illinois. These scholarships cover tuition and fees.

Veterinary Medicine

Health Professions Scholarship Program. Scholarships for full-time students enrolled or accepted for enrollment in the College of Veterinary Medicine.

APPENDIX B: UNIVERSITY OF ILLINOIS LONG-TERM LOAN FUNDS

This list of University-funded long-term loan funds is for information only. *Students do not apply for specific loan funds.* For specific information regarding application procedures for financial assistance see Financial Aid from the University on page 80.

Alpha Phi Omega. Administered under the general rules of the Board of Trustees governing loan funds.

American Society for Metals, Sangamon Valley Chapter. Administered under the general rules of the Board of Trustees governing loan funds for loans to metallurgy students only.

Elsie Anderson Memorial. Administered in accordance with general policies of the University with preference to students of Chinese origin who are graduate students in the Jane Addams School of Social Work.

Anonymous. Administered according to general University regulations.

Architects Club of Chicago. Established for interest-free loans to fourth- and fifth-year architecture students.

Max Beberman Memorial. Established for students in education.

Dora E. Biddle Loan Fund for Girls. Established by Mr. Dora E. Biddle of Macon, Illinois, with preference given to women students most advanced in their University work.

Bloomington-Normal. Established by the Bloomington-Normal Illini Club for loans to students who are (1) residents of Bloomington or Normal, (2) residents of McLean County, and (3) other students at the University.

Joseph Borus. Presented to the University for graduate students in the Jane Addams School of Social Work.

Campus Chest. Established by Campus Chest student organization for loans to seniors only.

Norma E. Carr. Established by relatives of the late Miss Carr, chief clerk in the College of Communications, for loans to undergraduates in the College of Communications.

Carter-Pennell. Established by the late Joseph Carter and his wife, Jane Pennell Carter, for loans to any sophomore student in the Colleges of Engineering or Agriculture, or to any student in the College of Liberal Arts and Sciences who is specializing in science.

Champaign Business and Professional Women's Club. Loans for deserving women students.

Chicago Illinae Club. Established by the Chicago Illinae Club especially for women students of the University.

Alice V. B. Clark. Established by the late Mrs. Alice V. B. Clark, widow of the late Dean Thomas Arkle Clark, for loans to undergraduate students, preferably juniors and seniors. Loans cannot exceed $300 in any one year and notes must bear interest at 5 percent.

Class of 1907. Administered under the general rules of the Board of Trustees governing loan funds, with no restrictions except that preference be shown to lineal descendants of members of the class.

Class of 1915. Established by alumni of the class of 1915 and administered under general University regulations.

Class of 1933. Administered under the general rules of the Board of Trustees governing loan funds.

Class of 1938. Established by alumni of the class of 1938 and administered by general University regulations.

Commerce. For loans to commerce students.

Consolidated. Fund established by the merger of the Automobile Show Fund, the Class of 1895 Loan Fund, the Graduate Club Loan Fund, the Detroit Illinae Loan Fund, the Kappa Delta Pi Loan Fund, and the Student Friendship Fund.

John S. Crandell. Established by William P. Jones, Jr., in honor of the late Professor John S. Crandell of the College of Engineering. Loans are made to graduates and undergraduates studying civil engineering.

Marcia S. Crelin. Administered under general University policy.

John and Rosalyn Crowley. Administered under general University policy.

Grace Darling Memorial. Founded by Mrs. R. V. Cram, of Minneapolis, and operated under the regulations of the Edward Snyder Fund.

Louis Edward Dawson Memorial. A gift from Mrs. Edward Dawson, as a memorial to her son, Louis Edward Dawson, for worthy students in chemistry.

C. C. DeLong. Administered under general University regulations for assisting students in completing their education.

Denison Memorial. The late Charles A. Denison, of Argenta, bequeathed this fund for loans to worthy senior students recommended by the president and treasurer of the University.

Detroit Illini. Established by Detroit Illini. Loans are made according to general University regulations.

Harry J. Diffenbaugh. Income from a trust fund established by the late Harry J. Diffenbaugh provides loans to needy residents of Missouri who are students at the University of Illinois.

Dow Chemical. Administered under general University policy.

Beulah Drom. For women students during their senior year.

Du Page County Health Improvement Association. A gift from the Du Page County Health Improvement Association, for loans to students majoring in health education.

Electrical Engineering. Established by the Electrical Engineering Society and maintained by the Student Branch of the American Institute of Electrical Engineers. Available for juniors and seniors in good standing in the curricula in electrical engineering and engineering physics.

Engineering Student. The residual assets of the Real Cooperative Company (formerly the Engineering Cooperative Society) for the benefit of students in the College of Engineering.

Gertrude Escher. Income from an endowment for student loans.

Gilbert C. Finlay Memorial. Established in memory of Mr. Finlay, a former staff member of the College of Education. Administered under the general rules of the Board of Trustees governing loan funds.

Olaf S. Fjelde Memorial. This fund was established May 14, 1964, by family, friends, and fellow faculty members of the late Mr. Fjelde. Loans are available to architecture students, with preference given to members of Alpha Chi Rho.

James Wilford Garner Memorial. Presented to the University in 1941, this fund is used for loans to worthy students in political science.

Benjamin Chase Grout Memorial. Established September 18, 1963, by George Vrana in memory of Benjamin Chase Grout. Preference is shown to premedical students in the granting of loans from this fund.

Samuel and Lydia Hare. The late Samuel Hare, of Piper City, bequeathed this

fund (accepted by the Board of Trustees in 1937) for loans to students who, by previous study, have demonstrated their worthiness. Loans may not exceed $500 to any one borrower.

Le Sueur H. Hendrick Memorial. Accepted February 27, 1962, this fund was established by the Capital Chapter of the Illinois Society of Professional Engineers to be made available to deserving juniors or seniors in any branch of engineering.

Mary Trowbridge Honey. The Board of Trustees accepted a bequest of the late Mary Trowbridge Honey, of Wayne, Nebraska, in 1942, for loans to students in the Department of Classics.

Robert R. Hudelson. This donation, accepted in 1957, was established in recognition of Dr. Hudelson's services in agriculture. Preference is given to indigent students in agriculture.

Illini Club of the Philippines. Fund established October 25, 1966, by the Illini Club of the Philippines for loans to Filipino students at the University.

Ina Meredith Hunter. The late Ina Meredith Hunter bequeathed this fund, in 1961, for loans to deserving junior and senior students who won honors in scholarship during their sophomore year.

Illinois Congress of Parents and Teachers. For assisting worthy future teachers.

Margaret Lange James. Established by a gift from University of Illinois President E. J. James which later was increased by the University Senate as a memorial to him. Loans are made to students, preferably women, who have been in residence at least one year, who have attained junior standing, and who expect to graduate.

Edward J. Jones and Martha E. Jones. A bequest of the late Edward J. Jones of Secor, Illinois. Administered under the general rules of the Board of Trustees governing loan funds.

A. F. Kaeser. A gift from Dr. A. F. Kaeser, of Highland, Illinois, for graduates of high schools located in Highland, Illinois. If this fund is not exhausted through loans made to these graduates, loans may be made to graduates of high schools located in the counties of Madison, Bond, and Clinton. Loans made to any one student may not exceed $200 annually or $800 for the four-year period.

W. G. Kammlade. Established by friends of the Cooperative Extension Service in agriculture and home economics in the name of Dr. W. G. Kammlade, retired associate director of the Cooperative Extension Service. Prospective borrowers must have a career interest in cooperative extension work. The maximum loan is $700.

Michael Evans Kandrac. Loans to students in the school of architecture.

Willis Prentice Kimble. A memorial fund established by Mrs. Kimble. Loans may be made to sophomores, juniors, and seniors but not in excess of $100 to any one individual.

Koppers Company, Incorporated. Established by the Koppers Company for loans to students in architecture.

Franklin C. Kreider. Established by the Collinsville High School Band Parents Association, for loans to Collinsville High School graduates majoring in instrumental band music.

Marcia Lome Kritchevsky. Established in memory of Mrs. Kritchevsky for students in teacher training.

Law School. Established by College of Law alumni. No cosigner or period of residency is required.

League of Choreographers and Composers. Loans are made to students in dance or the related arts.

William E. Levis. Established by a gift from William E. Levis, president of the Owens-Illinois Glass Company. Loans are made (1) to employees or children of employees of the Owens-Illinois companies or subsidiaries, who are students in

attendance or prospective students expecting to register immediately at the University; and (2) if funds are available, to students who have been in attendance at the University for at least one year.

Annie Lourie. Administered according to general regulations governing loan funds for undergraduate students.

Royal B. MacDonald. For students in the School of Music.

India Mathis Memorial. Established by the employees of the Student Employment Office in memory of Miss India Mathis, an employee in that office. For working undergraduate students.

David T. May. Established in memory of Mr. May, a member of the class of 1905, for deserving students.

William B. McKinley. Established by the late Senator William B. McKinley for loans to male students who have been in residence at least one year and intend to graduate.

Albert Merritt Foundation. Administered under general University policy.

Milwaukee Illini Club. Established by the Milwaukee Illini Club for long-term loans to deserving students from Wisconsin.

J. S. Morris. Established by the late Joseph R. Morris for loans to students who have been in residence at least one semester. Loans may not exceed $400. Preference is given to advanced students.

National Association of Federal Veterinarians. For loans to students in the College of Veterinary Medicine.

Jesse Smith Noyes Foundation. A gift from the Noyes Foundation. Administered under the general rules of the Board of Trustees governing loan funds.

Overseas Soldiers. Available to soldiers, sailors, and marines with overseas service and to their descendents. Qualifying students in the junior, senior, or post-baccalaureate years in the College of Agriculture are eligible. $200 maximum loan.

Panhellenic. Established by the Panhellenic Council for sorority women who have completed one semester at the University.

C. W. Parmelee. Established by friends of Professor Cullen W. Parmelee for loans to students in ceramic engineering.

John J. Parry. Non–interest bearing loans for graduate students majoring in English.

Robert Peine. For students in the College of Agriculture who are majoring in agronomy.

Phi Beta Kappa. A gift from the Gamma of Illinois Chapter of Phi Beta Kappa. Loans are available to promising students enrolled at the Urbana-Champaign campus in curricula through which election to membership in Phi Beta Kappa is possible.

Phi Delta Kappa. For students in the College of Education.

Marion K. Piper. For students in home economics.

Lieutenant Jack Plucinski Memorial. Administered under general University policy.

Joseph A. Polson and Betsy C. Polson. Established by a bequest of Mr. and Mrs. Polson and administered in accordance with general University regulations.

Alice Rettker. For women, preferably those in advertising or public relations.

Raymond E. Rickbeil. Established by Raymond E. Rickbeil and administered according to general University regulations except that borrowers must have maintained an overall scholastic grade-point average of 4.0 (A=5.0) under the present grading system or its equivalent.

Charles Rikhoff, Jr. Administered under general University policy.

Lawrence W. Rogers. For students in architecture.

William T. Rogers. A bequest of William T. Rogers for loans to deserving students in need of financial assistance.

Marcus Russell. Established by the late Marcus Russell of Los Angeles, California, for loans to worthy and indigent students.

St. Clair County Heart Association. Established by the Midwest Rubber Reclaiming Company and established within the framework of the Burnsides Research Laboratory. Recipients of loans are to be designated by Doctor F. A. Kummerow, or his successor, as head of the laboratory.

St. Louis Illinae Club. Scholarship loan fund.

St. Louis Illini. Established by Illini from the St. Louis area for loans to students from that area.

Sandemac Kennel Club Veterinary. Established by the Sandemac Kennel Club, Inc., of Decatur, Illinois, for loans to students in the College of Veterinary Medicine.

Alta Gwian Saunders. Administered under general University policies.

William Wesley Sayers. A bequest by Mr. Sayers for loans to undergraduates studying engineering and engineering science and research.

Gretchen and Paul Schilling. Administered under general University regulations.

Sears Roebuck Foundation. For College of Agriculture students only.

Sigma Delta Epsilon. Established by Gamma Chapter of Sigma Delta Epsilon, for loans to senior or graduate women in science.

Edward Snyder. Established by the late Edward Snyder, professor of German at the University of Illinois at Urbana-Champaign. For loans to students of junior standing who are in residence and who expect to graduate. Preference is given to those of high rank and advanced standing.

Springfield Illini Club. Established by Springfield, Illinois, Illini for loans only to students from that area.

David B. Steinman. For students in civil engineering.

W. Clement and Jessie Stone Foundation. For College of Law students.

Henry Strong Educational Foundation. The Henry Strong Educational Foundation, established under the will of General Henry Strong, provides loans to students under twenty-five years of age, preferably in the upper classes.

John R. Stubbins. Established by the John Russel Stubbins Foundation for loans only to students who are bona fide residents or citizens of Venezuela and are candidates for the B.S. or master's degree in the College of Engineering. Maximum $3,000 for each academic year.

Student Senate. For undergraduate students.

Harry Roberts Temple. Established by Mrs. Frieda Block Temple. The regulations of the Edward Snyder Fund apply except that preference is given to students in the Department of Architecture. Applicants must have junior standing.

Tile Council of America. For students in architecture.

U.S. Steel. For loans to graduate students in physics and related areas.

University of Illinois Foundation. For long-term loans.

University of Illinois Women's Club. Established by the University of Illinois Women's Club, for loans to undergraduate women on the basis of need; otherwise it is governed by general University regulations.

Harley J. Van Cleave Memorial. For worthy doctoral candidates in zoology.

Carlos J. Wagner Circus Fund. Administered under general University policies.

P. L. Windsor. Established in memory of Doctor P. L. Windsor for loans to students in the Graduate School of Library Science.

Sally Wolin Memorial. Established by the Sally Wolin Memorial Council for loans to students in the Jane Addams School of Social Work.

Women's League. Established by the Women's League and administered under the regulations of the Edward Snyder Fund.

Zoology Department. Established by the staff and graduate students in the Department of Zoology to honor Majid Al-Radhawy, a graduate student in zoology.

APPENDIX C: SHORT-TERM AND INTERMEDIATE LOAN FUNDS ADMINISTERED BY THE UNIVERSITY

See Short-Term and Intermediate Loans on page 89 for application procedures.

Cora C. Bright Memorial. A gift from the Illinois Congress of Parents and Teachers.

Class of 1932. This fund was presented to the University in 1934 through the Alumni Association.

Gerald S. Cohen. A fund established in memory of the late Gerald S. Cohen.

College of Veterinary Medicine. Established by donations from the Champaign Kennel Club and the Women's Auxiliary of Illinois Veterinary Medical Association.

Decatur Obedience Training Club, Inc. Established for short-term loans to students in the College of Veterinary Medicine.

Verne Hall Detweiler. A gift from the Illinois Congress of Parents and Teachers.

Dr. and Mrs. Arthur L. Ennis. Established in 1956.

Fraternity Alumni. Established through contributions of fraternity alumni for emergency use by the dean of students.

Edward C. Heidrich, Jr. A gift from Edward C. Heidrich, Jr.

Fred Dilling Kirkpatrick Memorial. Established by Sidney Kirkpatrick in memory of his father, Fred Dilling Kirkpatrick.

Lincoln State Cat Club, Inc. Established for short-term loans to students in the College of Veterinary Medicine.

Men's Student Aid. Established in 1960.

Thomas L. Seanor Memorial. Established by Lieutenant Harry F. Seanor as a memorial to his brother, Lieutenant Thomas L. Seanor.

Irene Symonds. A gift from the Illinois Congress of Parents and Teachers as a memorial to Irene Symonds.

Tau Delta Tau. Established by the Tau Delta Tau fraternity as a memorial to two of its members, John Donald Danielson and Joel Hubbard Rossiter.

University Faculty Short-Term Loan Fund. Established for short-term loans to students at Urbana-Champaign from a portion of the funds solicited in 1931 by the University Senate Committee on Unemployment and Relief.

University of Illinois Women's Club. Established in 1964.

Veterinary Medicine — Various Donors. Established to provide loans for veterinary medicine students.

APPENDIX D: COURSE ABBREVIATIONS USED IN CURRICULAR LISTINGS

Accy.	Accountancy
Adv.	Advertising
A.A.E.	Aeronautical and astronautical engineering
Afr. St.	African studies
Ag. Com.	Agricultural communications
Ag. Ec.	Agricultural economics
Ag. E.	Agricultural engineering
Ag. M.	Agricultural mechanization
Agr.	Agriculture
Agron.	Agronomy
A.F.A.S.	Air force aerospace studies
An. S.	Animal science
Anth.	Anthropology
Arab.	Arabic
Arch.	Architecture
Art	Art and design
As. St.	Asian studies
Astr.	Astronomy
Atmos.	Atmospheric sciences
Avi.	Aviation
Bands	Bands
Bioch.	Biochemistry
Bioen.	Bioengineering
Biol.	Biology
Bioph.	Biophysics
Bot.	Botany
B. Adm.	Business administration
B.&T.W.	Business and technical writing
Cer. E.	Ceramic engineering
Ch. E.	Chemical engineering
Chem.	Chemistry
Chin.	Chinese
C.E.	Civil engineering
Cl. Arc.	Classical archaeology
Cl. Civ.	Classical civilization
Comm.	Communications
C. Lit.	Comparative literature
C.S.	Computer science
Czech	Czech
D.S.	Dairy science
D.T.	Dairy technology
Dance	Dance
Econ.	Economics
Educ.	Education
Ed. Ad.	Education administration
Ed. Pr.	Educational practice
Ed. Psy.	Educational psychology
E.E.	Electrical engineering
El. Ed.	Elementary education
Eng.	Engineering
Eng. H.	Engineering honors
E.P.S.	Educational policy studies
E.S.L.	English as a second language
Engl.	English literature and American literature
Entom.	Entomology
Env. St.	Environmental studies
Fin.	Finance
F.S.	Food science
For.	Forestry
Fr.	French
G.E.	General engineering
Geog.	Geography
Geol.	Geology
Ger.	German
Gmc.	Germanic
Grk.	Greek
H. Ed.	Health education
Hebr.	Hebrew
Hi. Ed.	Higher education
Hindi	Hindi
Hist.	History
H.P. Ed.	History and philosophy of education
H. Ec.	Home economics
Hort.	Horticulture
Human.	Humanities
Indon.	Indonesian
I.E.	Industrial engineering
Ital.	Italian
Japan.	Japanese
Journ.	Journalism
Korea.	Korean
L.I.R.	Labor and industrial relations
L.A.	Landscape architecture
Lat.	Latin
L.A. St.	Latin American studies program
Law	Law
L.A.S.	Liberal arts and sciences
Lib. S.	Library science
Ling.	Linguistics
Math.	Mathematics
M.E.	Mechanical engineering
Med. S.	Medical sciences
Met. E.	Metallurgical engineering
Mcbio.	Microbiology
Mil. S.	Military science
Min. E.	Mining engineering
M. Grk.	Modern Greek
M. Hbr.	Modern Hebrew
Music	Music
N.S.	Naval science
Nuc. E.	Nuclear engineering
Nutr. S.	Nutritional sciences
O.T.	Occupational therapy

Pers.	Persian
Pet. E.	Petroleum engineering
Phil.	Philosophy
P.E.	Physical education
Phycs.	Physics
Physl.	Physiology
Pl. Pa.	Plant pathology
Pol.	Polish
Pol. S.	Political science
Port.	Portuguese
Psych.	Psychology
R. TV	Radio and television
Rec.	Recreation and park administration
Rel. St.	Religious studies
Rhet.	Rhetoric and composition
Ruman.	Rumanian
R. Soc.	Rural sociology
Russ.	Russian
S. Ed.	Safety education
Sansk.	Sanskrit
Scan.	Scandinavian
Se. Ed.	Secondary and continuing education
S. Cr.	Serbo-Croatian
Slav.	Slavic
Soc. W.	Social work
Soc.	Sociology
Span.	Spanish
Sp. Com.	Speech communication
Sp. Ed.	Special education
Sp. H.S.	Speech and hearing science
Swhli.	Swahili
Theat.	Theatre
T.A.M.	Theoretical and applied mechanics
Ukr.	Ukrainian
U.P.	Urban and regional planning
V.B.S.	Veterinary biological structure
V.C.M.	Veterinary clinical medicine
V.M.S.	Veterinary medical science
V.M.	Veterinary medicine
V.P.H.	Veterinary pathology and hygiene
V.P.P.	Veterinary physiology and pharmacology
Vo. Tec.	Vocational and technical education
Yruba.	Yoruba
Zool.	Zoology

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